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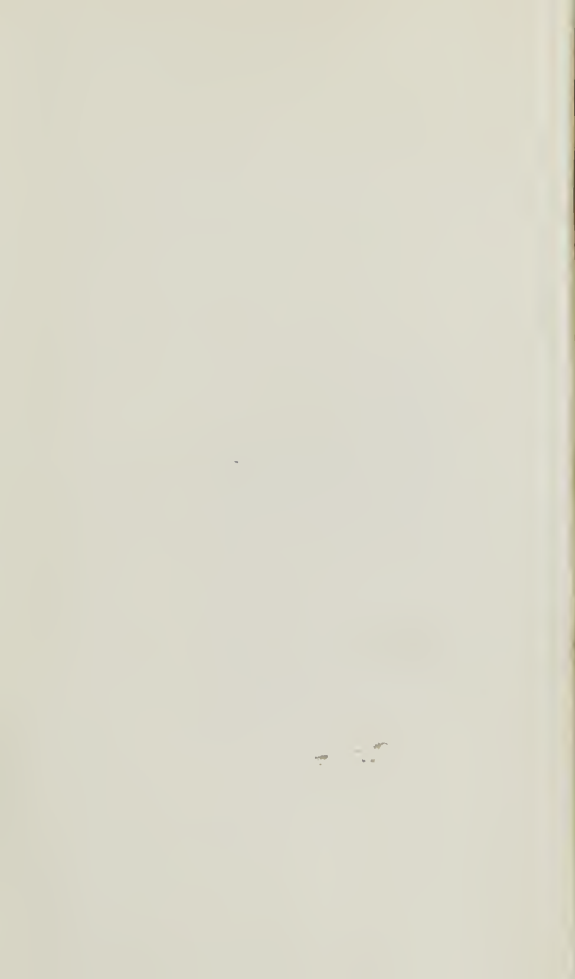
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**C A T E C H I S M**  
**OF**  
**M E D I C A L J U R I S P R U D E N C E ;**

**BEING PRINCIPALLY**

**A COMPENDIUM OF THE OPINIONS OF THE BEST  
WRITERS UPON THE SUBJECT.**

**WITH A**  
**PRELIMINARY DISCOURSE**  
**UPON THE IMPORTANCE OF THE STUDY OF**  
**FORENSIC MEDICINE.**

Designed for Physicians, Attornies, Coroners and Jurymen.

---

**BY STEPHEN W. WILLIAMS, M. D.**

LATE PROFESSOR OF MEDICAL JURISPRUDENCE IN THE  
BERKSHIRE MEDICAL INSTITUTION; FELLOW OF  
THE MASSACHUSETTS MEDICAL SOCIETY, &c.

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TO  
VALENTINE MOTT, M. D.

PROFESSOR OF PATHOLOGICAL AND OPERATIVE  
SURGERY, IN THE COLLEGE OF PHYSICIANS  
AND SURGEONS, IN THE UNIVERSITY  
OF NEW-YORK, &c. &c.

My early, unwavering, and much esteemed friend;  
the most successful cultivator of Medical and Chirurgical  
science;

THIS LITTLE TREATISE  
IS RESPECTFULLY DEDICATED,

to one who most cordially reciprocates the friendship,

STEPHEN W. WILLIAMS.





TO THE PROFESSORS IN THE BERKSHIRE  
MEDICAL INSTITUTION,

Who now sustain, or who have hitherto filled the chairs in that  
flourishing School ;

AND

TO THE CLASSES,

Who have attended my lectures upon Medical Jurisprudence  
for eight successive years in that seminary,

THIS CATECHISM,

Containing an outline of the principles of the science  
I have taught,

IS RESPECTFULLY INSCRIBED,

By their sincere friend,

STEPHEN W. WILLIAMS.



## P R E F A C E.

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THAT Physician who has been called upon the stand in a court of justice, to give in his professional opinion upon the case at issue ; that Advocate whose duty it is to interrogate such a witness upon his opinions ; and that Jurymen upon whom it devolves to decide upon the merits of the case, must be aware of the importance of some such treatise as this, to guide him in forming his opinions and decisions.

Larger works have recently been published in the English language, upon the subject of Medical Jurisprudence, but it is believed, they are not generally owned or read by professional men, or laymen. In my introductory discourse I shall award due merit to the invaluable works of Beck, Smith, Paris and Fonblanque, Ryan, and Cooper. To these, and to the manuscript notes of my friend, Dr. Ives, of New York, taken from the lectures of the late Dr. Stringham, I am indebted for many of the facts and observa-

tions contained in the work. This little treatise, it is hoped, will in some measure obviate the necessity of resorting to the above more voluminous works, which, on account of the expense attending the purchase of them, the leisure, or inclination of the reader, will not be so generally perused as a smaller manual. I have endeavored to embody the principal facts in the science, which may be wanted in judiciary examinations, and to give as correct answers to the questions proposed, as the present state of the science would allow. They are principally compendiums of the opinions, as the title-page implies, of some of the ablest writers upon the subject. The best treatises upon Medical Jurisprudence can be but little more than condensations of the opinions of others. The science in this country, and in England, is comparatively new, and that individual, probably does not exist, who has personally witnessed all the facts and cases involved in the subject, and his opinions, if not substantiated by the observations of others who have been conversant with the differ-

ent branches of the profession, would be crude and imperfect. The labor of condensation almost infinitely transcends that of writing an original treatise upon almost any individual subject. When I was appointed Professor of Medical Jurisprudence in the Berkshire Medical Institution, in the year 1823, not a single treatise, embracing a full view of the subject, had been published in the English language, of which I could avail myself, except the collection of Cooper, and that I did not receive until I had nearly prepared my lectures for delivery. Beck's work, although published in 1823, did not appear in season for me to examine it. In preparing eighteen or twenty lectures, the delivery of each of which occupied nearly an hour, I had to examine several hundred volumes, and frequently nearly as many to obtain a single fact upon an insulated subject. So that the task of preparing the course was necessarily onerous.

In my preliminary discourse I have quoted largely from our best writers upon the subject, preferring to give their opinions in their own

language, to any alterations I could give it. It is not, however, merely a compilation.

I have preferred the catechetical method of conveying information in this treatise, as it is more brief, and it will not subject the reader to enter into a very minute analysis of all the facts embodied in the work. He who wishes to examine the subject critically, is referred to more elaborate works upon it. When called upon the stand, it is by answers to interrogatories that we are to sustain our principles in the evidence given in by us.

To render the work intelligible to all for whom it is designed, a glossary, or explanation of scientific terms, has been added. The science of medicine is necessarily so encumbered with technicalities, that it would be inexplicable to the general reader without the aid of a glossary, or dictionary.

Should the work be favorably received by the public, it may pave the way for a larger one, ample materials for which are on hand.

Deerfield, Mass. 1834.

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# MEDICAL JURISPRUDENCE.

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## INTRODUCTORY LECTURE,

DELIVERED BEFORE THE CLASSES IN THE BERKSHIRE  
MEDICAL INSTITUTION.

GENTLEMEN,

I SHALL address you at this time upon the importance of the study of Medical Jurisprudence. But previous to enlarging upon it, I shall endeavour to explain to you the meaning of the term. Various appellations have been given to the science of legal medicine, such as Forensic Medicine, Legal or Judicial Medicine, and Medical Jurisprudence. I have adopted the latter term, although they are all nearly synonymous. In this I differ from Smith and Quincey, who prefer the term Forensic Medicine. It is however of little consequence which we adopt. The object of Medical Jurisprudence, Forensic, or Legal Medicine is to point out to the physician, those cases of real or supposed crime, on which he may be called to give

in professional evidence, in a court of justice. Farr, in his elements of Medical Jurisprudence, says:—‘ There is a kind of medical knowledge which is not so much concerned in the cure of diseases, as in the detection of error, and the conviction of guilt. A physician, a surgeon, or a coroner, is often called upon to make a deposition of what he knows concerning some particular transaction in a court of judicature. Such persons then should be well acquainted with the animal economy, and with those views of the science which in foreign countries have been dignified with a peculiar name, as the medicine of the courts, legal medicine, or medical jurisprudence.’

The eloquent and learned Haslam says:— ‘ The important duty which the medical practitioner has to perform when he delivers his testimony before a court of justice, should be clearly defined, conscientiously felt, and thoroughly understood—his opinions ought to be conveyed in a plain and perspicuous manner; he should be solemnly impressed that he speaks upon oath, the most sacred pledge before God, between man and man, and that the life of a human being depends upon the clearness and truth of his deposition. He is not to palm upon the court

the trash of medical hypothesis as the apology for crime; neither should the lunatic receive his cure at the gallows by the infirmity of his evidence—but above all his opinion should be so thoroughly understood by himself; so founded in experience, and fortified by reason, that it may resist the blandishments of eloquence, and the subtil underminings of cross-examination. The physician should not come into court merely to give his opinion—he should be prepared to explain it; and able to afford the reasons which influenced his opinions;—without such elucidations opinion becomes a mere *dictum*, and endeavors to claim precedence without courtesy or obligation to science.’

The courts of our commonwealth have adopted as a rule of law, as interpreted by the late lamented Judge Parsons, that they will not receive the opinion of a physician in any case without the *reasons* for that opinion. I believe the same rule is now in force in Great Britain. How important then is it, that *that* opinion should be founded in truth, should be founded upon a long course of laborious and even painful investigation. Upon that opinion frequently hangs the life of a fellow being. Upon that opinion given without knowledge, the innocent

may suffer an ignominious death, and the malicious offender against the laws of God and his country, escape unpunished. So little has this rule been enforced until lately in Great Britain, and I fear in the United States, that justice, or rather the Judges, forgetting that mercy should lean towards the accused in all cases where the evidence is not clear and decisive, have received the bare opinions of physicians, and frequently of unscientific physicians, and condemned many an innocent victim to the halter. Who can read the case of captain Donellan, who was executed in England not many years ago for the alledged murder of sir Theodosius Boughton, without horror? I know I differ in opinion upon this subject from Beck, and some others, yet I must confess the evidence is not sufficient to satisfy my mind of his guilt. Nine days after the burial of Theodosius a surgeon had his body raised, and notwithstanding another physician and surgeon declared that it was impossible to determine any thing in regard to the case, on account of the absolute putrefaction of the body, the first nevertheless proceeded to examine the stinking carcase and gave it as his decided opinion that sir Theodosius died from poison, notwithstanding the positive testimony of

that celebrated anatomist and surgeon, John Hunter, who swore that it was impossible to investigate the cause of death in such a state of general putrefaction. Donnellan innocently suffered for the death of Boughton. Another case is related by Dease, where the medical men decided that a man died from poison, when his death was unquestionably occasioned by a rupture. In this case too, the accused was sentenced to death, and suffered it ignominiously.

The observations of Elliotson on this subject are so appropriate that I presume I shall be pardoned for inserting them. "The character, the life of an accused individual may depend entirely on the opinions you deliver, you are liable every moment to be called on to deliver them, though a long interval may elapse before you receive such summons. You may blast your reputation or acquire honor. Your mode of treatment, your conduct, your information, are laid open. In ordinary practice circumstances may, to some extent, counterbalance deficiency of skill upon a practitioner's reputation.

'In general, says Dr. William Hunter, I fear too much has been left to our decision. Many of our profession are not so conversant with science as the world may think; some of us are a

little disposed to grasp at authority in a public examination, by giving a quick and decided opinion, when it should have been guarded with doubt ; a character which no man should be ambitious to acquire, who is presumed every day to be deciding nice questions upon which life may depend.

‘ A public act is no sooner done than accounts of it are circulated to the remotest corners ; such is the diffusion of knowledge, in every spot, there exist persons ready to appreciate the conduct and opinions of a medical witness.

‘ Full impressions of the solemnity of the duty imposed upon us in courts of justice, a careful preparation to qualify us for forming opinions, and repeated illustrations of the difficulties which may be thrown in our way to confound our knowledge, and make us lose our temper, are the best preservatives against such misfortunes.

‘ Lawyers resort to a severity of investigation which perplexes the theories, but more frequently enkindles the irritable feelings of the medical practitioner. Persons conversant with human testimony, are scrupulous of admitting it as an uniform truth until it has been carefully sifted. With these precautions, and professional expe-

rience, the medical practitioner may approach the tribunal with confidence. However dexterous he may shew himself in fencing with the advocate, he should be aware that his evidence ought to impress the judge, and be convincing to the jury.

‘Medical practitioners give evidence with confidence, on points which it is obvious they never considered with requisite attention; stating facts as universal, which admit of many exceptions, and modifications; or rejecting them altogether, because exceptions do exist; destroying evidence or failing to discover it from not knowing where it is, or how it is to be obtained. Sometimes well informed medical men are brow-beat and baffled, from not knowing the estimation and respect they are entitled to receive for their skill.’

John Gordon Smith says: ‘there is hardly a situation in which a medical man can be placed that so powerfully menaces his reputation, and no one where so much personal uneasiness is endured,’ as that of being placed upon the stand for the purpose of giving in professional evidence. Paris and Fonblanque observe that the medical witness is too frequently rendered miserable and inefficient for the purposes of jus-

tice, from the novelty and perplexities of a situation so different from that in which he is generally placed in the ordinary exercise of his profession. The remark is also made, and truly it is too well founded, that there is often but little apparent difference between the situation of the witness and that of the criminal. The liberty which the advocate claims, and is allowed to the utmost, is often, very often, applied to the unworthy, and unmanly purpose of unhinging the witness rather than eliciting the truth. But I acknowledge that it is not very easy to rectify this on the part of the only person who possesses the power. The judge is necessarily reluctant to interpose voluntarily; and witnesses are unaware, or at the moment forget, that they have a right to protection from insult, if they are honestly bent on the discharge of their duty, and accordingly but seldom appeal to the proper quarter.

‘ Medical witnesses, after being prepared to discharge their duty to the best of their ability, may find that the examination turns out to be a very different thing from what they anticipated. It may even be wide of the real point, and is sometimes purposely so. This may occur through want of acquaintance with the subject



on the part of the examiners; in consequence of which the witness is exposed to the mortification of being misunderstood, and having his statements misapplied—of being asked questions that no person can answer,—of being made, perhaps a party to the triumph of falsehood and error—or being rendered amenable to unmerited censure, for testimony that he never intended to give.

Upon such occasions a timid or stupid man may be ruined with his eyes open, because he is not so adroit at opening his mouth. One is, under such circumstances, thrown entirely on his intrinsic resources; he cannot run home to his books, or into a brother practitioner's house to state a difficulty, and have the benefit of information or advice how to get out of it. There he is and there he must remain and abide the upshot; and (if he acquits himself badly,) endure the scrutiny and displeasure of the bench, the brow-beating of the bar, the scorn, laughter, or contempt, of the audience, the discontent of his friends, and the exposure of the public press, with all the consequences that may follow to his reputation and fortune. It is on occasions of this nature that we ought "to have our wits about us," for no other help can be resorted to;

and it is on such occasions that real superiority is likely to be fairly displayed. Nor will a general and accurate acquaintance with one's profession always do ; but being too frequently relied on, it occasionally proves the *ignis fatuus* that leads our brethren into a slough, in which they get out sometimes in but indifferent plight.

A dexterous advocate has a great advantage over any witness however doughty ; and may contrive to lead a very intelligent one so far astray, as that the latter may be deceived into a train of admissions, the inferences from which are to be afterwards turned against him. This is a trick which the witness may not perceive in time to save himself, or if he should, he may neither be bold enough nor clear headed enough to do so ; and even a moral conviction of the unfairness of such procedure may not always be sufficient to warrant those, who are to appreciate and apply the evidence to the purpose at issue, to draw a distinction between the presumptive meaning of the witness and the ostensible purport of what he has said. As we can have little evidence as to thoughts, opinions, or intelligence, but through words, which are their proper signs and medium of exhibition, a witness can in no other way give testimony. Cau-

tion in speaking, as well as in preparing to speak, should be observed by him; and he should on no account answer a question till he clearly understands it, or pretend to frame an answer when he knows nothing of the matter. He should avoid conjectural observations, and continually bear in mind that what he says must stand upon record as signifying what he means. It will not do, under such circumstances to receive one statement first, and afterwards substitute another. Such a practice would strike at the foundation of evidence. If it were allowable to honest men, it would be claimed by rogues; and justice could never be duly administered.'

The reviewer of Dr. Warren's pamphlet upon dislocated hip joint in the New-York Medical and Physical Journal says:—'that too much latitude is allowed and taken with medical character in courts. There may be, (and we are sorry to say it) individuals whose ignorance or perverseness deserve rebuke, but even these do not require to be denounced, blackened, ruined. And yet there is scarcely a case that we have seen reported for many years, in which a great freedom of speech is not permitted concerning the talents and medical standing of individuals;

their observations are perverted, and it has happened that some advocates have given the medical information (magnificently great as it must be) a preference over that of aged practitioners, who unfortunately happen to testify on the opposite side.

On the other hand it is matter of astonishment, how with these facts full before them, physicians appear so desirous to rush into courts of justice to give their testimony. Can the little temporary eclat of relating a dissection, of explaining the treatment of an uncommon case, or of enumerating their experiments, compensate for the sneers, the jibes, the calumnies of an advocate, whose faculties are sharpened to detect the smallest errors, who if he cannot *find* will *make* them. But it is too true he generally finds them.

Judges too sometimes fancy their knowledge of medical matters very profound. They have sometimes a very different part to act, viz. to discriminate between the knowledge and acquirements of various medical witnesses. We have known one to say to the jury, Dr. A. is a profound chemist, his opinion is to be relied on (and by implication of course, those of a different one were not) while the testimony of this

same chemist would not have withstood the scrutiny of a student who had paid tolerable attentions during a single course of lectures.

'The remedy for these evils is evident. Let a set of men be particularly educated as examiners in medical cases, and of course as witnesses. The facts will thus be settled ; and their qualifications will give force to their opinions. If they are disposed to question these, the grounds for discussion are laid out, and the difference can be understood. In this way, also, those examined become vested with a sort of legal authority, which may occasionally serve to enlighten the bench.'

One grand object in teaching medical jurisprudence is to systematize and arrange medical facts so that the physician shall not be confounded in giving in his evidence in a court of justice. It is to be supposed that every gentleman previous to commencing the practice of his profession is well qualified to discharge all the duties of it with fidelity and skill, that he is thoroughly acquainted with all the principles of the science ; yet unless he has been taught systematically to reflect upon those cases upon which he is always liable to be called to give his opinion before a judiciary tribunal, he will often

wander in a labyrinth of perplexity and error. It is of the utmost importance that his opinions should bear the nicest scrutiny and investigation. 'It is the duty of all men to be well acquainted with the general principles of law and justice, and it would be disgraceful to a physician to be ignorant of them. He subjects himself to ignominy and scorn if he prevaricates in his opinion and testimony, or delivers it at variance with the known and established principles of the profession.'

'It is a complaint,' says Dr. Percival, 'made by coroners, magistrates, and judges, that medical gentlemen are often reluctant in the performance of the offices required of them as citizens qualified by professional knowledge to aid in the execution of public justice. These offences it must be confessed, are generally painful, always inconvenient, and occasion an interruption to business, of a nature not to be easily appreciated or compensated. But as they admit of no substitution, they are to be regarded as appropriate debts, which neither equity nor patriotism will allow to be cancelled.' We are bound, says Smith, to discharge public as well as private debts, and the debts we publicly owe, are on the score of *equity* due for those exemptions which by law we enjoy.'

It is not merely on account of the trouble and inconvenience that this reluctance is felt. It is in a great measure owing to apprehensions of our professional appearance in court. It is difficult to overcome this uneasiness. The idea that the life, the reputation, and the fortune, of an individual, and the happiness of others depend upon our testimony ; and the belief that our own reputation is involved in the manner in which we give in our evidence, is sufficient, many times to appal the stoutest heart. Under all these circumstances together with the manner in which counsel often embarrass medical witnesses, we are often prevented from exercising the cool and unbiassed judgment which the case demands.

Although this reluctance is revolting to our feelings it can be remedied. It is necessary to guard against the sacrifices of life, character, and fortune ; and as criminal charges are substantiated and made void by evidence, it is of the last importance that it should be properly managed.

‘The real remedy,’ says Smith, ‘for the professional evidence is to apply himself to study, with a view to his appearance in a court of justice. It is not only as much his duty to go

there when called upon, as to the bedside of the sick, but to be able to speak as much to the purpose, in the one situation as the other, as far as the state of professional improvement will enable him.

‘ His duty when called before a tribunal is to put the judges of the cause in full possession of circumstances which relate to the physical question (whatever that may be) as far as he himself is conscious of them. I am aware that medical students are advised by teachers of great eminence to say no more than is necessary in answer to the questions put to them. This advice is excellent in one way, but I cannot admit the propriety of it on the principle on which it is dictated. For any witness to *babble* in a court of justice would be highly indecorous; for a man of science to do so on matters of opinion, would be ridiculous; but to adhere strictly to bare replies to questions, whatever they may be, lest a clever interrogator should lead the respondent into confusion and contradiction, is an injunction applicable, and in fact likely to be useful to those only who are altogether unqualified to undergo such an examination. It may be supposed to screen the witness from self-commitment, and perhaps might prevent *gross ex-*



posure of his ignorance ; but, if uniformly observed, it could not but lead, sometimes to the implication of innocence, more frequently to the exculpation of the guilty, but almost always to an unfavorable impression as to the practitioner's sense of duty.

‘ If, therefore, it appears to a professional witness that the questions put to him are not calculated to produce the real explanation belonging to the point at issue, he ought to bring forward of his own accord whatever may be essentially wanting. In his answers he is not only sworn to speak the truth but the WHOLE truth ; and this he may do without incurring censure for untimely or indecorous officiousness ; without improper interference with statements given on the part of other practitioners ; and often with the gratifying result of preventing mistakes, by explanation, to which by bare replies he might have contributed.’

Legal Medicine claims an origin coeval with the other branches of the profession. It is mentioned particularly in the books of the old testament and the laws of Moses. You will find much valuable and entertaining information respecting the curious notions of the ancient law-giver concerning the doctrine of quarantine

in contagious diseases, and particularly the plague of the leprosy, as it is called, in the 12th and 13th chapters of the book of Leviticus. You will, also, find much interesting matter respecting virginity, rapes and divorces, and the punishment for rapes in the 22d chapter of Deuteronomy. The punishment for defloration was very severe in those days—‘But if a man find a betrothed damsel in the field, and the man force her and lie with her; then the man only that lay with her shall die;—But unto the damsel thou shalt do nothing; there is no sin in the damsel worthy of death. For he found her in the field, and the betrothed damsel cried, and there was none to save her—If a man find a damsel that is a virgin, which is not betrothed, and lay hold on her, and lie with her, and they be found; then the man that lay with her shall give unto the damsel’s father fifty shekels of silver, and she shall be his wife.’ In the same chapter it is mentioned that the elders are to be consulted upon cases of doubtful virginity. The writings of Moses frequently mention the crime of infanticide. But there is not much to be found there which will exalt the character of the superstitious people over whom he ruled.

The ancient Grecian and Roman states enac-

ted laws upon the subject of legal medicine, but the first modern code was made in 1545, by Charles the 5th, emperor of Germany, called '*Constitutio criminalis Carolina*,' in which it was enacted that medical men shall be consulted when death has been occasioned by violent means, whether criminal or accidental, by wounds, poisons, hanging, or the like; and in cases of concealed pregnancy, procured abortion, child-murder and the like. Beck says 'the publication of such a code very naturally awakened the attention of the medical profession, and summoned numerous writers from its ranks.' In Italy physicians were consulted in these cases as early as 1650. Laws upon this subject are now general in all civilized communities. But though legal medicine claims an origin as ancient as many other branches of the profession, there has not, until lately, been paid to it that attention which its importance demanded. On the continent of Europe more has been done towards its cultivation than in the other parts of the globe. Strange that a country like Great Britain, famed for all that is great and noble in science, whose people, owing to a variety of physical and moral causes, are more peculiarly exposed to melancholy and a long

train of nervous diseases, which, in a peculiar manner, predispose them to the dastardly crime of suicide more than any others ; where insanity is so often made a subject of legal investigation ; where murder and crime is so often perpetrated, by poison, and other more direct and painful instruments of death, should so long neglect a subject, so interesting, and so intimately connected with the welfare of her citizens.

Mr. Royston in his paper upon the progress of Medical science, published in the 18th volume of the European Med. and Phys. Journal, says : ‘ Medical Jurisprudence is a branch of professional science to which the English have been singularly inattentive, while the practitioners on the continent have explained its uses both by public lectures, and through the medium of the press.’

A late writer says, ‘ To account for the numerous German and French publications on this subject, we must observe that the laws of these countries are much more minute in their distinctions respecting crimes than the criminal code of Great Britain. This may be one reason why the subject has been so much neglected, that it has not formed any portion of a course of

lectures; and very lately has a professor of forensic medicine been established in a British university.'

Works upon Medical Jurisprudence in the English language are not numerous. The first book, purely original that was ever published in England, was Dr. Farr's, which appeared in the year 1816. Male's work was published in 1788, but it was evidently a compilation from Fazelius, a foreign writer. Since the year 1816 several valuable and interesting works have been published in that country. Smith's principles of Forensic Medicine, and his principles of Medical evidence are among the most interesting. Paris and Fonblanque have united their efforts and given us an invaluable work in three volumes octavo. Ryan has recently published an excellent work, which has just been republished in this country with notes by Dr. Griffith. Bartley, Dease, and Haslam, have each written valuable treatises. Haslam's is confined to Insanity, as relating to Medical Jurisprudence. We can bear ample testimony in favor of the work of Dr. Theodoric Romeyn Beck, published within a few years at Albany, than which a more able work is not to be found in any language. We shall have frequent occa-

sion to refer to him. Cooper's collection forms an interesting volume. Numerous papers upon detached parts of the subject have been published in the various periodical medical works of the day. John Beck on Infanticide is highly interesting. Orfila on Poisons should be perused by every person who wishes to acquire a knowledge of legal medicine—Also Christison's toxicology.

On the continent works are more numerous, but they are unfortunately locked up in a foreign language. Fidelas, an Italian, first wrote upon the science in 1602. Zaccheus succeeded him in 1621. His work is often referred to. Bohn, in Germany, and Brendelius are often mentioned with applause. The more modern works are those of Fodere, Mahon, Capuron, Metzger, Schlegel, &c. All these authors, and many others, have written elaborately upon the subject, besides Vesace and Carlile in Italy, and Kegeloot, in Holland.

Lectures upon this subject are now delivered in the principal Medical schools in Great Britain, either separately, or connected with some other branch. This science is likewise taught, either fully or partially in most of the medical schools in the United States. Judge Cooper's

observation in regard to this subject must be limited, when he asserted at the time he published his work, that he knew of no works published, or lectures delivered in the United States, upon medical jurisprudence, except those of Dr. Charles Caldwell, then of Philadelphia. We recollect to have attended with great pleasure and instruction, the lectures upon legal medicine, of the late lamented Dr. James S. Stringham, of New York, so long ago as the year 1813. His lectures were full, minute, and as interesting as any course upon any subject which was delivered in that city, during that term, and his manuscript lectures are often referred to by writers on the subject of forensic medicine. Dr. Nicholas Romaine of that city, delivered a course of lectures on this subject, that season. The celebrated Dr. Rush lectured upon it in 1810. Annual courses have been given upon it in Boston for many years, and it is not now neglected in many of our medical schools. It is beginning to excite a lively interest with all physicians, and it were ardently to be wished that it would more generally excite the attention of gentlemen of the bar, whose duty it is to investigate the subject; but alas! we fear that our profession is as repulsive to them,

as theirs appears to be to us. Too often, we have reason to believe, they found their judgment on the mere opinion of a physician, even when that opinion is formed hastily, and with a very imperfect knowledge of the subject. How deplorable is the condition of the accused who depends upon the medical knowledge, of his attorney to protect him from the malice of his accusers. To the honor of the profession we mention an instance, and perhaps such instances are more frequent than we have noticed, of medical knowledge in the person of Erskine, who procured the acquittal of Hadfield for shooting at the king of England. Hadfield was proved to be insane.

There are so many outlets to life, and avenues to death, that medical men are often called upon by coroners to give their opinion in cases of suspicious and sudden death. Every jury of inquest ought to contain at least one physician. A man is found dead upon the road, or elsewhere. A jury is summoned to investigate the cause of his death. No external visible marks are found upon him, whereby he might come to his end. The body is to be opened; the brain, the thorax, or the abdomen, are to be examined. Who but a physician or a surgeon, is capable of



discriminating between the appearances of these viscera in health and in disease ? Who but he can analyze and detect the subtle matter of poison in the stomach, and pronounce with certainty that it produced his death ? Who but he can tell the absolute fatality of wounds, whether the subject came to his death by noxious vapors ; whether he committed suicide by means of the rope, whether it was committed by his own hand, or whether murder was committed by the hand of another ? So of drowning, and all those suspicious and unknown causes of death which so often occur. On all these cases, and many more we are constantly liable to be summoned, and to make out our reports. We have, more than once been summoned to attend such investigations. We distinctly recollect a case, where nothing but our dissections could ascertain the cause of death.

An affray occurred at the raising of a building, where the assistants were heated with liquor. An insult was given by a youth of 16 or 18 years of age to a man of 60. It was resented by him. The youth seized the man by the throat, with the left hand, and with the right fist struck him a severe blow upon the forehead. He immediately sallied back, and in an instant

he was dead. I was sent for, and arrived to him within thirty minutes of the time of the affray. I tried to reanimate him by opening a vein, by frictions, and other means, but all in vain. A jury of inquest was summoned, of which I was one, with several other physicians. We met a few hours after and examined the body, and found no external marks of violence. I detached the upper part of the cranium, and examined the brain. It appeared healthy, and there was no turgescence of the vessels of it. I next examined the throat by dissecting off the external integuments. There were distinctly to be seen the print of the thumb and fingers upon each side of the larynx directly over the carotids. The blood was somewhat extravasated, and settled, but not sufficient to show through the skin. Proceeding with our dissection, I laid open the thorax and examined the lungs and heart. They were not injured, but in the cavity of the thorax we found a large quantity of effused blood in a dissolved state. I should judge there were nearly three pints. The lungs were swimming in it. The viscera of the abdomen, as we expected, were natural.

The grasping the throat so violently, and the severe blow upon the head at the same time,

probably ruptured an important blood-vessel which discharged itself into the cavity of the thorax, and occasioned his death. The jury brought in a verdict of manslaughter. The prisoner was tried before a justice, and, although the complaint by the laws was notailable he was put under 1000 dollar bonds for his appearance at the next Supreme Court. He forfeited his bonds, and was absent several years. He was found in December 1822, nine years and a half after the affray, nearly naked, wading in Charles river, near Boston. He was brought to Deerfield, the greatest object of pity that I ever beheld. His intellects were entirely gone, and he was in a complete state of insanity. He was confined a part of the time in our pauper house, with a chain about his neck, to prevent his doing mischief, to which he was inclined, and a part of the time in Franklin jail, awaiting the return of reason for his trial. But reason never again reanimated his breast. She had fled her empire forever, and he died a short time after.

Except the operative branches of surgery, there is not a subject, gentlemen, which requires greater anatomical knowledge than this. Besides the absolute necessity for frequent dissec-

tions to enable you to investigate the nature and causes of disease, and to aid you to discriminate nicely between sound and morbid appearances, you will often be called upon for the treatment of such cases as are not immediately fatal. You not only want to be thoroughly acquainted with the causes, but the treatment. How necessary to know how to recover suspended animation when the vital spark has not entirely fled, and in cases of poisoning, how absolutely requisite is it that you know not only the tests of the articles employed, but their antidotes.

In forming your opinions in cases of death from doubtful causes, where dissection becomes necessary, I must request you in the language of Dease, ‘studiously to avoid all hasty opinions, or making any remarks on the case as you proceed in your dissection, for the attendants are attentive and will recollect; and I have known some instances, where the occasional remarks of the surgeon, and his ultimate decision did not correspond.’ Thus he. Remember, gentlemen, how much depends upon your evidence; that the issues of life and death are almost in your hands. Remember, too, when you have any doubts, those doubts must be expressed. Nothing but positive proofs must have a

positive declaration. Mercy must always lean towards the accused until he be adjudged guilty. Dease remarks:—‘if to be arraigned for murder strikes even the most hardened offender with horror, what must the innocent culprit suffer, who, prosecuted perhaps through malignity, and impeached through ignorance, finds his conviction from mistaken principles become a public wish. How often in those cases do we find a slight hint clear up a doubt that might otherwise have the most fatal tendency? And it is in those moments of terror and suspense that a discriminating and humane Judge may, by presenting the case in a proper point of view to the jury, rescue the unfortunate accused from an impending ignominious death, where the loss of life may be considered the lesser forfeit.’

But, gentlemen, the cases above alluded to, are not the only ones which require your attention in a medico-legal point of view. The honor, the reputation, and the life of a respectable female, or of a man accused of rape, may depend upon the evidence which a medical man may give in a court of justice, respecting infanticide, or the murder of a child, and respecting those signs of virginity upon which he alone can decide. There are so many circumstances of

importance to be noticed in pregnancy that it will require the nicest discrimination and judgment to be able to decide with strict justice upon the subject. Nothing but a thorough anatomical knowledge of the female organs of generation, and with all the phenomena of gestation and conception, which cannot be obtained without a mass of physiological facts, and an intimate acquaintance with the principles of midwifery, will enable you to form your opinions with that clearness and precision which will be absolutely necessary, when the life or reputation of a fellow-being is at stake. How many innocent victims have suffered the penalty of the law, in cases of supposed infanticide from the mistaken and erroneous views of the medical witnesses relating to the case. The time, we trust, has passed away, when the question of the rising or sinking of the lungs in water, is alone thought to be sufficient evidence to prove that the child has breathed, and has consequently been murdered. Other strong and positive evidence must now be adduced in order to produce the conviction of the unfortunate victim who has added guilt to shame. This subject we deem to be all important, and we shall devote much of our attention in elucidating it. It

is the opinion of Dr. Hunter 'that the crime of infanticide is not committed near so often as has been supposed. The laudable wish to preserve her character frequently induces a woman to conceal her situation, and not being certain how far her pregnancy had advanced, or unacquainted with approaching delivery, she may be seized with pains which she mistakes for griping in the bowels (which the first pains of labor greatly resemble,) and going to the privy, be there delivered either of a dead child, or one, which, though born alive, may be killed by falling on the ground, or drowned in the profuse discharges of the mother, who, from fear, pain, or insensibility is unable to assist it. In such a case' continues the humane Dr. Hunter, 'is it to be expected, when it would answer no purpose, that a woman should divulge her secret? Will not the best dispositions of mind urge her to preserve her character? She will, therefore, hide every appearance of what has happened, as well as she can, though if the discovery be made that conduct will be set down as a proof of her guilt.'

Independently of the topics on which we have enlarged there is another subject upon which we are more frequently called to give our

opinion and evidence in a court of justice, than upon any other. I refer to insanity, or that state of mind in which a man is incapable of committing a crime, or, if he commit it, he is not amenable to the laws for it. 'This is a complaint which is often feigned, but alas! we too often find it real. How many causes operate to produce it. Dreadful is the wide spreading devastation of the mental faculties. It frequently attacks the fairest and most lovely portions of the works of God. When it is feigned for the purpose of protection from guilt it demands our severest reprobation. 'Tis here our knowledge is required, and we shall endeavor to point out rules whereby you will be able to discriminate between reality and fraud.

Mania is less common in the United States than in the old countries of Europe. The means of procuring an ample competency here are within the reach of all. Arbitrary governments oppress the poor and humble orders of society, which often lead them to the commission of crimes, at which, in other circumstances, their natures would revolt. A keen sense of guilt and turpitude is sometimes greater than human nature can endure, and, in sensible minds it often leads to the alienation of the men-



tal faculties. There is no peculiarity of climate which predisposes to it. The cause is to be sought for and is generally found in the pecuniary distresses to which the common people are subjected. These will account for the more frequent perpetration of suicide in the island of Great Britain, rather than the fogs and exhalations to which the people are exposed, and to which the crime is referred. During the reign of terror in France, her mad-houses were peopled with maniacs. Terror has a powerful effect upon the mental faculties. In those days it was often feigned, and it was the means of saving many lives.

We are often called upon to decide upon that state of mind whereby a man is capable or incapable of making a will. In proving a will the question is always asked by the judge, whether the deceased was of sound and disposing mind and memory. This question is many times difficult to solve. The boundary line between sanity and insanity has hardly been drawn by writers upon the subject. Locke, and I believe most metaphysicians as well as physicians agree, that upon some subjects a man may be of perfectly sound mind, while upon others he may be a complete lunatic. That upon most of the

common concerns of life, he may be rational, intelligent, and upright; no difference can be discovered in his words and actions from those of common men, who are acknowledged to be sane, yet touch the secret spring which leads to the cause of his derangement, and his ideas are all afloat; he stands confessed the perfect lunatic. If under the influence of this delusion he commit a crime, he is not amenable for that crime. If under this delusion he dispose of his property, his will cannot be valid. But here, gentlemen, the utmost discrimination is necessary on your part. No department of your profession requires more patient and accurate investigation. If in all the other departments of medical jurisprudence great care is necessary in forming and giving in our opinion, how much more necessary is it in these cases which have often baffled the persevering application of a Rush and a Haslam. Screen not, by your evidence, the guilty offender who makes use of the plea of insanity for the commission of crime, and for his protection from guilt. But, if, upon examination, you find him insane, boldly give in your opinion to that effect. Pity the infirmities of human nature, and spare, O! spare, by your testimony the innocent victim of a delu-

sion brought upon him by the visitation of the Most High. On this subject I shall touch with 'a trembling hand, and with a feeble pen.' It is involved in clouds and thick darkness. It has drawn forth the talents of some of the greatest and wisest physicians in almost all countries and ages, but I fear the veil is so closely drawn over it, that it cannot, in all cases, ever be lifted. Thanks to the founders of our insane hospitals, the treatment of mania is now better understood than formerly, and these benevolent institutions are now the means of rescuing thousands of unfortunate beings from their mental thralldom, and restoring them to usefulness, to their friends, and the world.

In the language of Gilbert—'The benefits conferred by legal medicine are innumerable; there is not an action, a movement of man in society, of which it does not take cognizance; it pervades all nature, and at all times; it is the first most sacred of human laws, for it has for its object the good of society, and the happiness and security of mankind.'

'Under no circumstances,' says Griffith, 'does the science of medicine assume so imposing and dignified an attitude, as when regarded as a branch of legislation. Disentangled

from the web with which worldly caprice, credulity, and empiricism, are ever seeking to embarrass the more ordinary path of her labors, she at once bursts forth, in all the pride and strength of undeniable facts and endless resources, and her disciples are enabled proudly to present additional claims upon the respect of the learned, the confidence of the oppressed, and the gratitude of the public. In the exercise of his art as a medical jurist, how exalted and honorable is the occupation of the physician. 'There is scarcely a circle of natural science, upon the boundaries of which he does not impinge, in some point of his extensive orbit, and on which he does not shed additional rays of knowledge and of light. It is when thus called on, he develops the vast resources, and hidden stores which have for ages been accumulating in the sanctuary of his tutelary divinity, and following his precept and his example, offers them as a safeguard to innocence, and a shield to the oppressed.'

The illustrious and immortal Rush concludes one of his lectures with the following forcible and eloquent language. 'To animate you to apply to the study of medical jurisprudence, I beg you will recollect the extent of the services

you will thereby be enabled to render to individuals and the public. Fraud and violence may be detected and punished; unmerited infamy and death may be prevented; the widow and the orphan may be saved from ruin; virgin purity and innocence may be vindicated; conjugal harmony and happiness may be restored; unjust and oppressive demands upon the services of your fellow citizens may be obviated; and the sources of public misery in epidemic diseases may be removed by your testimony in a court of justice. Nor is this all. By cultivating the science I am recommending, you may extend its benefits beyond our courts of justice, to the legislatures of our country, and thereby become the means of obtaining laws founded upon modern discoveries and opinions in physiology, which shall place testimony, as far as it relates to the morbid states of the different faculties of the mind, upon such a basis, as to relieve judges and jurors from the painful necessity of acting in a discretionary manner.'

The following syllabus will explain the course we shall adopt in our lectures. 1. Sudden death. 2. A few remarks upon age. 3. The doctrine of *Naevi Materni*, or marks will be examined. 4. Commencing with the infancy of

man, we shall make a few remarks upon pregnancy. We shall endeavor to shew, 5. the propriety or impropriety of performing the Caesarean operation upon the dead, and on the living mother. 6. Virginity; in what it consists, with some remarks upon rapes. 7. Pretended pregnancy. 8. Concealed pregnancy. 9. The doctrine of moles, monstrosity. 10. Impotence and sterility, with the causes which may induce them. 11. Abortion. 12. Superfoetation. 13. Infanticide, or the murder of infants. 14. Hermaphrodites. 15. Feigned diseases, concealed diseases. 16. Poisons, the various methods in which they may be applied, with their tests and antidotes. 17. The manner in which those suspected to have died of violence should be examined. 18. Wounds, discriminating between those which are fatal, and those which are not, or are fatal only by accident. 19. Death in consequence of hanging, drowning, noxious vapors, &c. with the most approved methods of restoring suspended animation. 20. Dangerous drunkenness. 21. A few remarks upon insanity.

C A T E C H I S M  
OF  
MEDICAL JURISPRUDENCE.

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SECTION I.

SUDDEN DEATH, AS APPLIED TO MEDICAL JURIS-  
PRUDENCE.

1. What is understood by sudden death in the healthy state ?

The death of a person, either from some apparent cause, or not, which has no connection with personal interference.

2. Do we know what life is ?

We do not ; we only know its powers and functions.

3. What constitutes death ?

The cessation of these powers and functions.

4. How is this state of body denoted ?

By a recumbent posture, a cessation of respiration, by a purple or pale skin, a stoppage of the circulation of the blood in the veins. There

is no pulsation of the heart and arteries. The countenance is ghastly, and the body is cold, and the muscles stiff.

5. Do all these signs universally occur at the same time ?

They do not, for the body frequently remains warm a great length of time, sometimes for many days. In some instances the muscles do not become rigid at all.

6. What is the appearance of the countenance in death from the inhalation of noxious vapors ?

Sometimes suffused and bloated ; sometimes unchanged for a long time ; sometimes the color is heightened, rather than diminished.

7. Are there any diseases of the human body which greatly resemble death ?

There is a great resemblance betwixt asphyxia and death.

8. In this case what is the term applied to asphyxia ?

Suspended animation.

9. What is the meaning of the term asphyxia ?

It is that state of the system in which the pulsation of the heart and arteries cannot be perceived. This sometimes occurs in syncope and some other complaints, and yet the patient recovers.



10. Have any other diseases been mistaken for death?

Yes. Apoplexy, catalepsy, hypochondriasm, hysteria, epilepsy, drunkenness, *coup de soleil*, or a stroke of the sun, violent anger, and many others have all been the immediate causes of real or apparent death.

11. What do you say of tests to verify the existence of breathing, such as a lighted candle placed before the mouth, or feathers or other light substances, or a looking glass?

They are not to be depended on—for breathing may be restored when these proofs have appeared to indicate that it was extinct.

12. Why is it of importance to examine for the pulsation of the heart and arteries?

Because wherever pulsation is perceptible, life cannot be extinct.

13. If pulsation cannot be discovered at the wrists, where else would you look for it?

In the carotid, the femoral, and temporal arteries, and even in the heart itself.

14. In examining the heart how would you place the body?

Turn it towards the left side, and bring the fore part undermost.

15. What do you say of proofs applied to the

senses, such as noises, strong odors, blistering, scarifying and cutting off parts, are they proper or not?

They are not to be depended upon.

16. What is the most undoubted sign of death?

Putrefaction.

17. Can putrefaction occur during life?

It cannot.

18. How do you determine between putrefaction and gangrene, and suppuration?

The two latter cease with life. Putrefaction is known by a peculiar smell different from gangrene. It is always known by an experienced practitioner, but difficult to describe.

19. How are the sphincter muscles at death, relaxed, or rigid?

Relaxed.

20. Is the elasticity of the human body lost or retained at death?

Lost.

21. In all cases of sudden death when a person is cut off in apparent health, to what officer is it necessary by the law to apply?

To a Coroner.

22. Is it necessary, where any doubts exist, that a physician should be on the jury?

It is.

23. What are the terms usually employed by a Coroner's jury?

Natural death—Accidental death—died by the visitation of God—Wilful murder—Felo de se, and Lunacy.

24. What is the verdict for Accidental death?

This may happen from personal interference, or unavoidable exposure to accidents and injuries.

25. What is the verdict for Natural death?

It is when the person has come to his end by sufficient causes without blame or accident. The verdict must give the cause, if possible.

26. What is the term, died by the visitation of God?

This is returned where no manifest or satisfactory cause of death presents itself, which can induce the sudden death, and where there is no evidence or suspicion of criminal agency.

27. When is a verdict of wilful murder brought in?

From the evidences of witnesses of the fact, or from undoubted signs that sufficient violence to induce death has been used, or from these evidences and signs combined.

28. When is a verdict of Felo de se to be returned?

When the deceased has committed suicide or felony upon himself.

29. When is a verdict of lunacy returned ?

When the deceased was incapable of reasoning rightly at the time of his death. In other words when he was insane.

30. What other variations of expression are sometimes given to verdicts ?

Manslaughter, culpable and justifiable homicide.

31. Are examinations after death, or post mortem examinations to be made by physicians in all cases where a jury is summoned in cases of sudden death ?

They are absolutely necessary, even though the death occurred in the presence of witnesses.

## SECTION II.

## OF AGE.

1. At what age does the law suppose that a male child is capable of committing a rape?

Not before the age of fourteen years.

2. At what period of life have some rare cases been recorded of boys arriving to the age of puberty?

At the age of four.

3. Ought not the law then to regard the precocity rather than the age of the individual?

It undoubtedly should.

4. How old was the boy to whom the woman in Paris attributed her pregnancy?

Ten years.

5. What is infancy generally considered to be?

That period between the birth and seven years.

6. What is infancy in law?

It is a young person under 21 years of age.

7. Ought any other division upon this subject to be made than that which is suggested in the rise and decline of life?

No.

8. What is generally the age of puberty in this climate?

From 14 to 16 in males, and from 12 to 14 in females.

9. Has climate any influence on the manifestation of puberty?

Yes. In tropical climates it comes on earlier, and in the frigid zone much later.

10. How is this manifestation known in males?

By the expansion of the faculties—the voice becomes fuller and more grave; by the expansion of the glottis—the beard grows—the genitals are covered with hair—and he is capable of emitting prolific semen.

11. How is puberty known in females?

By an expansion of the breasts—the genital organs swell, and become enlarged—menstruation occurs, attended with heat, flushes, and a fulness of the system.

12. Does pregnancy depend upon the menstrual flux?

Yes. It cannot take place before its appearance, nor after its permanent cessation.

13. Is the male capable of performing his part in the process of procreation before the age of puberty?

He is not, and according to the law of England before the 14th year. By the same law he

is not qualified to enter into matrimonial engagements until the completion of the 21st year.

14. At how early a period has a woman been known to become pregnant in any climate ?

A Swiss girl became a mother at the age of nine years.

15. What are some of the most important rules of common law in England and the United States as regards age ?

They are, says Griffith in the Cyclopædia of Practical Medicine, 'too numerous and diversified to detail in this place. Some of the most important, however, require notice. Thus 14 years in the male, and 12 in the female have been ruled to be ages of discretion for consenting to a marriage. At 14, also, a minor may make choice of a guardian. Twenty-one is full age, before which no purchase made, or contract entered into, except in certain cases provided for by law, is valid. As it regards crimes it is ruled that children under 7 years of age, are without discretion, and are exempt from punishment ; between 7 and 14 some latitude is allowed, and if they appear to possess a sense of crime, they are liable to punishment ; but in most cases the rule of presumption is that a child under 14 is *indoli capax* ; after this age he is *doli capax*.'

## SECTION III.

## OF THE CAESAREAN OPERATION.

1. Why does the Caesarean operation demand investigation in a treatise upon medical jurisprudence ?

Because in England and it is believed in this country a person cannot hold property as tenant by the courtesy, or by right, if the child has been delivered by the Caesarean operation. (See Blackstone.)

2. What are some of the accidents to which pregnant women are subject which sometimes destroy life ?

By the pressure of the distended uterus upon important blood-vessels, the blood is forced to the head with too much violence and apoplexy is induced. Convulsions are frequently brought on by the violence of pain. Haemorrhages ensue from the misplacement of the placenta. By an obstruction to the passage of the child the uterus is sometimes ruptured.

3. If the mother die from such cause is it proper to perform the Caesarean operation ?



Yes. Because it can give no pain to the mother, and it may preserve the child.

4. In such a case, ought we not to be absolutely certain that the mother is absolutely dead before resorting to the operation?

Yes. For at least two instances are on record, where the operation was performed while the mother's heart was still beating.

5. What are the indubitable signs that the mother is dead?

Putrefaction and decomposition.

6. If a woman die in parturition what are the signs by which we can determine that the child is dead?

Recession of the milk—flaccidity of the breasts—coldness of the abdomen—mechanical weight of the uterus—want of motion in the child—foetor in the room of the patient—foetor of the discharges.

7. In this case will it be necessary to operate?

No.

8. Are there any situations which render this operation necessary?

Yes.

9. What are they?

When the foetus is alive and the mother dead—when the foetus is dead and cannot be

delivered in the usual manner—when the mother and child are living but delivery cannot take place on account of malformation of the pelvis.

10. Has the Caesarean operation heretofore met with much success ?

It has been eminently successful in France, not so much so in Great Britain and in the United States.

11. Has the Caesarean operation been self-performed with success ?

Two or three instances of remarkable cases have been recorded in our Medical Journals.

12. What opinion should a physician express as to the conduct of a woman who is known to have a passage too narrow for the expulsion of a living child ?

In the first place he should recommend premature delivery. If after she has had one child taken from her, she should become pregnant again, notwithstanding she had been apprized of her danger, he should inform her of the only probable means of saving herself, and if she refuse to subject herself to premature delivery, he should not hesitate to recommend to her the Caesarean operation rather than the destruction of her child. She must warrant the hazard of her life.

13. What advice did Mr. Cruickshank give to a pregnant lady who had too narrow a pelvis, and who had before had one child destroyed ?

He advised her to live abstemiously, to take just food sufficient to support life ; to avoid exercise, recline most of her time upon a bed or sofa, and occasional bleedings.

14. Was she ultimately delivered without danger to herself or child ?

She was.

15. When it is necessary to perform this operation how should the physician conduct himself in the presence of his patient ?

He should manifest no surprise or suspicion of danger, and in proposing to her his intentions, he should do it only when she is suffering the pains of labor.

16. Why so ?

Because it is well known that at such times she will even solicit operations, which at other times she will shrink from with horror.

## SECTION IV.

## OF VIRGINITY AND RAPES.

‘Chastity is a quality of such high order in the female character, that nothing can compensate for its loss. When a woman voluntarily, or from weakness, or even through being deceived, parts with her personal purity, society consigns her to disgrace, and nothing to a virtuous female, can be a greater injury, than to be deprived of it against her will.’—*J. G. Smith.*

1. How may virginity be divided ?

Into Moral and Physical.

2. What is moral virginity ?

It is that state in which there is evidence that a woman has not violated her chastity by connection with a man, though the hymen may be broken by other means.

3. What is physical virginity ?

It is the perfect existence and soundness of all the organs constituting the natural appearance of virgins.

4. What is the hymen ?

It is a peculiar membrane of a semilunar form surrounding the lower half of the vagina.

It sometimes surrounds the whole circle, and is perforated with holes to admit the discharge of the menstrual flux.

5. Does this membrane ever form a complete septum?

Yes.

6. What is the consequence of this after the age of puberty?

It retains the menstrual flux, and forms a large sac, which it is necessary sometimes for the surgeon to open with the knife. In one instance, after such operation at least a gallon of grumous blood came forth.

7. What writers have denied the existence of this membrane?

Some of the older writers, as De Graaf, Ambrose, Pare, Palfin, Columbus, Buffon, &c.

8. Who have affirmed the existence of such a membrane?

Fabricius, Albinus, Ruysch, Morgagni, Haller, Denman, and all modern anatomists.

9. Is it probable that such a membrane exists?

There can be no doubt of it.

10. Is the rupture, or absence of it a proof that a woman has violated her chastity?

No. We should not depend upon this circumstance alone, for there may be a great vari-

ety of causes which may induce its rupture or absence, and yet the female may be innocent.

11. What is another circumstance, by which it has been thought a virgin may be known?

A narrowness or tightness of the vagina.

12. Is this sign fallacious?

Yes, for astringent injections may produce this straitness.

13. Are rugae in the vagina tests of virginity?

They are generally found in the vagina of virgins, but their absence is not an absolute proof of a violation of chastity.

14. Are the color of the nipples and hardness of the breasts signs of virginity?

Not to be depended on, for the breasts are not always firm in virgins. Too great a flow of the menstrual flux may produce flaccidity of them.

15. Is any thing to be depended on from pain during coition?

No, for during the menstrual flux a virgin may admit a man without pain.

16. What is thought with regard to a discharge of blood during coition, being a sign of virginity?

By some it has been thought to be a sign, but it is fallacious, for if it should take place during menstruation, blood will, of course flow.

17. What are the signs which Farr says may be relied on ?

The lips of the pudendum are more prominent and close together, the nymphæ are small, and of a light rose color, and not out of place. The wrinkles of the vagina raised considerably above the surface. Sometimes the bridle or fraenum is before the lips of the pudendum. Sometimes the hymen is present.

18. Can we from any *particular* mark denote the virgin state ?

No. But from the whole collectively we can form a pretty decided opinion.

19. What is a rape in law ?

The carnal knowledge of a woman, forcibly and against her consent ; and the unlawful and carnal knowledge and abuse of a female child under ten years of age, whether with or without her consent.

20. At what age is a male supposed to be capable of committing a rape ?

Not before the age of 14.

21. Ought there not to be some amendment of this law ?

There undoubtedly should, for there can be no doubt that rape may be committed by boys under this age, without any unnatural precocity.

22. What are some of the laws for the punishment of rape ?

The Jewish law punished it with death. It was merely trespass in the reign of Edward the 3d, but was made felony in the reign of Elizabeth and the perpetrator was excluded from the benefit of clergy. It is still death in Old England. In France, if committed with violence it is imprisonment, or if committed on a child under 15 years of age, the offender is condemned to hard labor. Imprisonment for life in New-York and Louisiana. Imprisonment, with or without fine in Pennsylvania, Virginia, New Jersey, Vermont and New Hampshire. Death in Massachusetts, Connecticut, Delaware, South Carolina, and Illinois.

23. How are aiders and abettors punished ?

In the same way.

24. Is it felony to force a harlot ?

Our law holds it to be so ; because the woman may have forsaken that mode of life.

25. Is it any mitigation of this offence that the woman at last yielded to the violence, if such her consent were forced by fear of death or duress.

It is not.

26. Is it any excuse for the party indicted,



that the woman consented *after* the fact, if she were afterwards forced against her will?

It is not.

27. Are these circumstances to be left to the jury?

They are, more especially in doubtful cases, where the woman's testimony is not corroborated by other evidence.

28. Where does the evidence generally rest in cases of rape?

With the female alone, who is allowed by the laws to be a competent witness, if she be of good fame, discover the offence soon after commission, and made outcry if it was possible that she might be heard unless restrained by menaces.

29. When must the complaint be made in order to be substantiated?

By the Scotch law in 24 hours; in England there is no limited time.

30. What does Sir Matthew Hale, as quoted by Blackstone, say of rape?

'That it is a most detestable crime, and therefore ought to be severely and impartially punished with death;' but, he continues, 'it must be remembered that it is an accusation easy to be made, hard to be proved, but harder to

be defended by the party accused though innocent.' He then relates two extraordinary instances of malicious prosecution for this crime which happened in his own observation.

31. What is necessary to constitute perfect rape?

Some degree of penetration as well as emission must be proved.

32. What are the signs of a rape being perpetrated?

The lips of the pudendum are more flaccid and distended than in a maiden—the clitoris is enlarged—the nymphæ are also enlarged, and of a more obscure color—the orifice of the urinary passage is enlarged and more open and exposed—the hymen is wanting—the wrinkles of the vagina are less prominent—the orifice of the uterus approaches nearer the orifice of the vagina than in virgins.

33. What can be learnt from an examination of the male and the female?

We shall usually find some marks of violence on one or both of them, scratches, torn clothes, &c.

34. Can a girl be debauched in sleep without her knowledge?

The question is undecided. Probably not, un-

less under the influence of narcotics, or intoxicating liquors.

35. Can a rape be committed upon a female without her consent?

No, unless there are peculiar circumstances attending. She may be under the influence of narcotic medicines, or three or four men may be engaged in restraining her, in which cases a rape might be committed. Otherwise not. And this seemed to be the opinion of one very well qualified to judge. During the reign of Queen Elizabeth a case occurred directly in point. A man was condemned for committing a rape, and the decision of the court awaited the signature of her Majesty to confirm the sentence. The high sheriff presented it to the Queen, and requested her to sign it; but she positively refused. He begged to know her reason. After drawing out his sword and putting it into the hand of the sheriff, she took hold of the scabbard and shaking it about gaily, she ordered him to sheathe the sword. After numerous attempts he declared he could not. Now said the Queen you have my reasons.

36. Is the presence of the venereal disease a proof for or against an accusation of rape?

If the disease is recent this should be considered a corroborating circumstance ; if old it must weaken the complaint of the female.

37. If a woman is ravished will she in any case become pregnant ?

Physicians disagree upon this subject. We should inquire how far her lust was excited, and if she experienced any enjoyment. Upon the whole, it is not likely that a woman would become pregnant when a rape had been committed.

38. Has a woman ever become pregnant under the influence of narcotics, or drunkenness ?

Such cases are recorded.

39. Who are the proper persons to conduct an examination for a rape ?

Perhaps a man well acquainted with the subject, and a judicious educated woman.

## SECTION V.

## PREGNANCY.

1. What are some of the laws of different countries in relation to pregnancy ?

In Athens the house of a pregnant woman could not be violated. In Egypt the punishment for crime in pregnancy was suspended till after the birth of the child. In Rome women in the pregnant state were suffered to go unpunished. In Germany they were not to testify as witnesses, and were not to be banished till after the birth of the child. In the laws of Moses it is death for any one to abuse a pregnant woman so as to cause abortion. In England, if a woman is capitally convicted, if she plead pregnancy she is not to be executed until after delivery. Blackstone says in case this plea is made in stay of execution the judge must direct a jury of twelve matrons or discreet women to ascertain the fact, and if they bring their verdict *quick with child*, (for barely *with child* unless it be alive in the womb, is not sufficient) execution shall be staid generally till the next session, and so on from session to session, till either she

is delivered, or proves by the course of nature not to have been pregnant at all. The same law is in force in France, and I believe in the United States.

2. How should pregnant women be treated?

With great tenderness and respect.

3. How should they live during the pregnant state?

They should not live more luxuriously than at other times. They should use moderate exercise and a generous diet.

4. What are some of the most frequent complaints of pregnancy?

In the early stages nausea and vomiting, indigestion, or loss of appetite, heart-burn, costiveness, haemorrhoids, tenesmus, diarrhoea, strangury, fluor albus, pains in the hips, numbness of the lower extremities, varicose veins, inquietude, or want of sleep, &c.

5. Notwithstanding all these, are we to infer that a state of pregnancy is an unhealthy one?

We are not. We are generally to decide that it is a healthy one, and that, as is the state in pregnancy, such, in general will be the state at parturition.

6. How can we determine whether a woman is pregnant?

This is sometimes difficult. In general the first indication is a suppression of the menses, the breasts sympathize with the uterus, and enlarge, a serous or milky fluid exudes from them, the abdomen sometimes becomes flatter before it enlarges. These with the diseases of the pregnant state warrant the belief of the existence of pregnancy.

7. What are some of the other symptoms in addition to the above?

Some of the first symptoms are a chill with a degree of insensibility, and sometimes fainting. To these succeed melancholy, pain in the bowels, in the head, and teeth. The motion of the child may be felt about four and a half months from conception. Towards the close, the abdomen becomes enlarged, and the vagina discharges mucus.

8. May not these signs, except the motion of the child proceed from uterine irritation?

Yes.

9. What about the period of quickening would be a surer sign?

An examination per vaginam.

10. Can a woman always determine *herself* whether she is pregnant?

No. It is difficult, many times to distinguish pregnancy from dropsy.

11. Can the enlargement of the womb, or of the abdomen, be depended on as certain signs?

No.

12. By what may the increased size of the abdomen be occasioned?

By dropsy, tympanites, schirrus of the mesentery, or morbid enlargement of the abdominal viscera.

13. What may the increased size of the womb be occasioned by?

By hydatids, or a collection of water in its cavity, and disease of its substance.

14. How can ascites be distinguished from pregnancy?

Generally by fluctuation, but not always, and where there is much disease it is difficult to form an opinion.

15. Is the body more, or less elastic in dropsy than in pregnancy?

Less, and generally there is a scarcity of urine in dropsy.

16. In what cases is it difficult to determine between amenorrhoea and pregnancy?

In prostitutes.

17. Is there generally much tenderness in the breasts of pregnant women?

Yes.



18. Will any other causes than pregnancy produce a secretion of milk ?

Yes. The causes which produce enlargement of the abdomen, schirrus uterus, light and continued rubbing of the breasts.

19. When a woman is pregnant how may it frequently be detected ?

By running the finger up the vagina, and at the same time throwing cold water upon the abdomen. This will frequently produce motion in the child, but not always, as in the case of twins.

20. Is there no more certain method of ascertaining that a woman is pregnant ?

Yes. An infallible sign, even in early pregnancy is said to be by auscultation, or the use of the stethoscope. By means of the stethoscope the placentary murmur may be distinctly heard about the end of the second, or beginning of the third month. It has repeatedly been detected in the tenth, eleventh, and twelfth weeks. The foetal pulsations cannot be ascertained until the 17th or 20th weeks of pregnancy. The placental *souffle* can be heard before any uterine tumor manifests itself. At the period at which the foetal pulse can be detected, the placental pulse can be perceived correspon-

ding with the maternal pulse, while the foetal pulse is much quicker. The stethoscope then is the most infallible test of pregnancy. (Drs. Kennedy and Montgomery, in the English Cyclopaedia of Practical Medicine.)

21. What is the criterion which Belloc said never failed him ?

He says when a woman has a suppression of the menstrual flux along with the other concomitant signs of pregnancy, we may consider her situation as yet uncertain, because these signs are common both to pregnancy and amenorrhoea. But, if, about the third month, she suddenly recovers her health, and the incidental circumstances disappear, her appetite, plumpness and color return, nothing can better prove the existence of pregnancy ; for if impaired health and the accompanying symptoms had been caused by simple suppression of the catamenia, the derangement would continue and even increase during the continuance of the cause.

22. How do we know when women feign themselves pregnant when they are not so ?

By the absence of all the signs we have enumerated.

23. Are there any other things to confute them ?

Yes. An improper age, either too tender, or too perfect—a preternatural defect of the menses in a fit age—too great a flow of them—a copious fluor albus—various diseases of the vagina, and diseases of the womb.

24. How are we to determine when a woman is in labor ?

A woman cannot be delivered without great pain. No one can counterfeit labor pains, nor conceal them when felt. The peculiar groan of the female in labor will always be remembered by the physician who has heard it.

25. How can you distinguish menstrual blood from the blood of parturition ?

Menstrual blood rarely, if ever coagulates.

26. How can you determine whether a woman has been delivered ?

This can be done by an examination of the breasts, of the external appearance of the abdomen, and of the appearance of the uterus and vagina.

27. How do you find the labia and vagina ?

They are relaxed, tumid, and of a deeper red than usual.

28. How are the discharges ?

Sanguineous.

29. What is the state of the uterus ?

It is enlarged, and neither the shape of the impregnated, or unimpregnated uterus.

30. How is the os tincae ?

Nearly circular, soft, ragged, and will admit the point of one or more fingers, according to the length of time since delivery.

31. What is the appearance of the belly ?

Prominent, wrinkled, the integuments lax, and covered with light broken streaks.

32. How are the breasts ?

They are enlarged and contain milk, and have a very distinct, and dark areola.

33. When should this examination be made ?

If within three days these signs will rarely deceive.

34. Can the whole of the signs above enumerated exist without a previous pregnancy ?

No, most decidedly.

35. May not these signs present themselves when a mole, or hydatids have been expelled from the uterus ?

No. They are produced by conception, and become blighted, and do not present such appearances as pregnancy.

36. Are not certain cases of suppression of the menses attended with some of the symptoms of pregnancy and the secretion of milk ?

Yes, but the abdominal tumor arises from inflation of the bowels, and when removed leave no marks, on the skin, labiae, or uterus.

37. When the mother is dead, what will dissection shew?

The womb is found enlarged—its substance thickened—its cavity filled with coagulated blood, or, if empty the internal surface is found covered with a black coating of blood.

38. Can dissection determine whether a female has had premature labor, or been delivered of a mole?

After premature labor there is generally decidua left, the uterine vessels are large in proportion as labor has advanced. After blighted ova there are no portions of healthy decidua, nor are there any appearances of enlargement of vessels.

39. What is the most infallible sign that a woman has been delivered?

The flowing of the lochia.

40. How may this be distinguished from the menses?

By the blood appearing at first more florid, and in six or eight days more white and serous. It has also a peculiar smell. The breasts are

soft and flabby during the menstrual discharge. Not so in the case under consideration.

41. What is the consequence of a sudden suppression of the lochia ?

Most painful swelling of the abdomen, sickness, and fever.

42. Can a woman be impregnated without her knowledge ?

No, unless she is under the influence of narcotics.

43. Can a woman be delivered of a child without her knowledge ?

No, unless extraordinary circumstances supervene, such as puerperal convulsions, fits, and unless she is under the influence of narcotics.

44. Can a woman's situation be such as to prevent her cutting the umbilical cord, and saving the child if she has not assistance ?

The case is possible.

## SECTION VI.

## ABORTION.

## 1. What constitutes abortion?

All deliveries of pregnant women before the seventh month of gestation, whether accidental, or by design are called abortions.

## 2. What are premature labors?

All deliveries between the seventh and ninth months.

## 3. What is criminal abortion.

When it is produced by design, or by violence it is called criminal.

4. Are the speculations of the ancient physicians with regard to the commencement of life to be depended on?

No.

5. When do the English and Saxon laws consider life to commence?

At four and a half months from pregnancy, or at the time of quickening.

6. When do modern physiologists consider life to commence?

From the very moment of conception.

7. Is the imperfect state of the foetus previous to quickening any objection to its being possessed of life ?

No, for life is not dependent on a complete or perfect state of the organs of the body.

8. What, then should be the punishment for procuring abortion before the period of quickening ?

The same as after.

9. Can any thing warrant taking the life of the child at any period of pregnancy ?

Nothing but a perilous or dangerous state of the mother, when her life would be at stake without it.

10. Can you give me a detail of the progress of the foetus in utero ?

From the first to the 15th day no distinct form can be perceived even by the microscope. At the 26th or 28th day it reaches a size that is perceptible. It appears like a tadpole composed of two substances the larger being the head. At the end of the fifth week the abdomen is in contact with the amnion. At the sixth week it is about the size of a bee, the umbilical cord is formed, which begins to twist on the tenth. A white speck (the vesicula umbilicales) can be seen in the first weeks between the amnion and



chorion, near the umbilicus. It is difficult to see it after the third month. The sex is hardly seen before the thirteenth week. Near the end of the third month the head is covered with down, and the fingers and toes with nails. These developements are more perfect between the fourth and sixth months—the lower extremities assume a proportion as symmetrical as the upper. At four months and a half it is about seven inches long. At the fifth month the abdomen becomes larger, or predominates over the thorax. At the sixth month it measures about nine inches, and has considerable vigor. From the fifth to the seventh it may be born alive, but it is incapable of being reared. At the beginning of the seventh month the testes in the male begin to descend into the scrotum but are not found there till the eighth. It grows rapidly from the sixth to the ninth month. The infant is perfectly formed at the seventh month, but is deficient in weight. It is then capable of being reared, so that the consideration of abortion cannot be carried beyond the seventh month of pregnancy. (J. G. Smith.)

11. When does abortion most frequently take place?

Between the seventh and eleventh weeks. It

may take place at any period between the first and seventh months.

12. Can a foetus be born alive between the first and fifth months?

No.

13. Can a foetus maintain existence long that is born between the fifth and seventh months?

No.

14. What terms do the French apply to these?

Non-viable.

15. What would be more proper terms?

Non-rearable, or immature.

16. Is abortion always connected with crime?

No, it may arise from natural causes, beyond the control of the female.

17. In cases of supposed abortion, by what signs can we detect it?

It is difficult to do it. When women have applied for medicines that might have a tendency to produce abortion—when they have frequently applied to be bled in the foot—when they have over-exerted themselves, &c. we have reason to suspect them.

18. Is it dangerous to attempt to procure abortion?

Yes. It is highly dangerous, and the danger is not much greater to the foetus than to the mother.

19. In puncturing the membranes to procure abortion, how many females die?

About one in seven.

20. Is it necessary, sometimes for a physician to procure abortion, not regarding the life of the child?

Yes, but it requires discrimination, and it should be done only to save the life of the mother.

21. What two questions should be put by the physician when called to a case of supposed criminal abortion?

Has the woman had a criminal abortion? By what means was it brought about?

22. What are the signs of abortion?

It is difficult to ascertain in early pregnancy, as there is then but little flowing of blood, which is not the case at the conclusion of pregnancy.

23. What are the appearances on dissection, if the abortion ends in death?

Beck gives the following among others—  
'The uterus is found enlarged and thickened—its blood-vessels are augmented in size—a

rough surface is found where the placenta was attached—the neck of the uterus relaxed, and the vagina enlarged—the ligamenta rotunda are relaxed, and the ligamenta lata obscured—a corpus luteum is found in the ovaria, if examined soon, but afterwards it vanishes and leaves a scar for life.’

24. When should the examination be made?

As speedily as possible.

25. What are the criminal means of procuring abortion?

They consist of mechanical irritation to the womb and its contents, the introduction of instruments for the purpose of rupturing the membranes, external violence, such as strokes upon the abdomen, powerful drastic purgatives, excessive fatigue, &c.

26. Can these be used without endangering the life of the mother?

No.

27. Can Ergot be classed with these remedies?

Yes, when there is a predisposition to abortion, it acts powerfully on the uterus and will produce abortion.

28. What are the natural causes of abortion?

Diseases of various kinds, such as fever, con-

vulsions, and the various complaints to which human nature is subject, debility of constitution, great sensibility of nerves, diseases of the womb, or of the urinary organs, intemperance in eating and drinking, all errors of diet and regimen, accidental falls, frights, previous abortions, hemorrhage, tight lacing. In fact the causes are innumerable.

29. May not all these causes occur without criminality ?

Yes.

30. What is the common law, or the law of England in relation to abortion ?

‘If a woman is quick with child, and by a potion, or otherwise killeth it in her womb, or if any one beat her, whereby the child dieth in her body, and she is delivered of a dead child, this though not murder, was by the ancient law homicide. But the modern law doth not look upon this offence in quite so atrocious a light, but merely as a heinous misdemeanor.’ ‘This is common law, and therefore applicable in the United States except in those states which have special laws upon the subject.

## SECTION VII.

OF MOLES, SUPERFOETATION, MONSTERS, SODOMY AND HERMAPHRODITES.

1. If a female has been delivered of a mole, is it a proof of sexual connection?

Moles are considered the effect of impregnation. They may, or they may not be.

2. What are they sometimes formed from?

Coagulated blood, confined by an imperfect hymen, or some obstruction to the uterine discharge.

3. What would you infer from moles being found where the hymen was not perforated?

That they were not produced by coitus.

4. What are the symptoms of moles?

Hardness of the abdomen immediately over the pubis, a sense of immovable weight, languor and debility.

5. Why should moles be opened?

Because they sometimes contain a foetus.

6. What is superfoetation?

The impregnation of a woman already pregnant.

7. Into how many kinds is this divided?

Into two. True and false.

8. What is true superfoetation ?

When it happens in the womb itself.

9. What is false superfoetation ?

When one foetus is in the womb, the other in the ovary, the fallopian tube, or in the cavity of the abdomen.

10. What is the first requisite to a superfoetation ?

The woman ought to bear two children, each of a distinct age.

11. What is the second requisite ?

The delivery of these children ought to be at separate times, and at a considerable distance from each other.

12. What is the third ?

The woman must be pregnant and nurse at the same time.

13. Does this fact now appear to be substantiated ?

From the researches of many respectable physicians it appears to be well corroborated.

14. Is it probable, according to Dewees, that the male semen ever enters the uterus in impregnation ?

No.

15. How then does the semen reach the ovaria ?

By absorption from the vagina.

16. How may this absorption be effected ?

By one of two ways, as stated by Dewees, whom I follow in these remarks upon superfœtation, either by the common absorbents taking it up and carrying it the general round of the circulation ; or by a particular set of vessels which have a direct communication with the ovary.

17. Which way appears most probable ?

The latter.

18. Why ?

Because it better agrees with the general simplicity of nature.

19. Has any one ever demonstrated these vessels ?

No, neither, says Dewees, ' has any one ever shewn the lymphatics of the brain, nor traced them on the amnion, nor followed them into the substance of the bones, no one has developed the muscular fibres of the uterus, yet we all know they exist.'

20. Do we not know that the influence of the male semen upon the ova, or ovum, produces impregnation ?

Yes.

21. If there are two ova fit for the male influence, how many foetuses will there be ?



Two, and if more, more than two.

22. Is the law perfecting the ova unchangeable ?

No, it is subject to changes. When in a situation to receive the male influence this may happen when there is a foetus in utero (Deweese) hence superfoetation.

23. What proof have we in support of the above doctrine of absorption ?

The fact of bitches being impregnated through glass funnels, and several cases by writers of the subject. The fact of women being delivered of black and white children at the same birth.

24. What are *monsters* ?

All deviations in the human species from the ordinary figure of man, are monsters.

25. How may monsters be divided ?

Into perfect and imperfect.

26. What is a perfect monster ?

It is that which absolutely differs in all its parts from the human appearance.

27. What is an imperfect monster ?

It is where only a partial alteration is made in its figure.

28. Where the genital organs only are displaced or affected, what is it then called ?

An hermaphrodite.

29. In the consideration of monsters, what three general questions present themselves?

What is the cause of monsters? Whether they are possessed of life? Whether a perfect monster be considered a human being?

30. What is the cause of monsters?

It is various, and depends on such changes of the constitution of the mother as can hardly be accounted for. Accident may have an influence.

31. May monsters live, and upon what does the duration of their lives depend?

Upon the parts affected.

32. Can perfect monsters exist?

No.

33. Into how many regular orders may monsters be divided?

Into three, or four.

34. What are they.

Monsters with redundance of parts—with deficiency of parts, and from confusion of parts.

35. May we not add a fourth, and what is it? From an error of place in some of the viscera.

36. What is *Sodomy*?

A connection of a man with a man, or of a man with a beast.

37. Can impregnation occur from a connection of a man with a beast?

It has been doubted by some whether it can. Some facts seem to shew that it can.

38. If the connection has been between man and man, what symptoms will present themselves on examination ?

If without consent, inflammation, excoriation, heat and contusion will probably be present. (Beck.)

39. What will be the effect of a frequent repetition of the crime ?

A dilatation of the sphincters, ulceration of the parts, or a livid appearance, and thickening. (Beck.)

40. What is the punishment for Sodomy ?

Death in England,—the state prison for life in New-York, imprisonment for any term of time, not exceeding one year, in Massachusetts.

41. What is an hermaphrodite ?

It is a person with a malformation of the genital organs.

42. Are they capable of begetting children ?

Sometimes they are, and sometimes not.

43. Did any being ever exist capable of exercising both organs of generation ?

No.

44. Are hermaphrodites precluded from marriage ?

No.

45. Into how many classes may hermaphrodites be divided ?

Into three.

46. What are they ?

First, individuals exhibiting a mixture of the sexual organs, neither being complete.

47. What second ?

Men laboring under malformation of parts.

48. Third ?

Females with analagous imperfection by enlargement or defect.

## SECTION 8.

## OF INFANTICIDE.

## 1. What is infanticide ?

It is the voluntary murder of a new born infant, as soon as it leaves the womb of its mother, to continue life as a member of society.

## 2. On this subject what is necessary to be proved ?

That the woman has been pregnant—that she has been delivered—that the child was living—that it was her own—that she had not very difficult labor—and that the child did not die in parturition.

## 3. According to John Hunter, is infanticide often a premeditated act ?

No.

## 4. Ought we not then to be extremely cautious about pronouncing upon the guilt of the mother in cases of alledged infanticide ?

Most surely.

## 5. What, according to M. Capuron, are some of the innocent causes of death in a new born infant ?

## 1. A long and dangerous labor, especially

where the waters have escaped prematurely, and where the head of the foetus is long retained in the pelvis, or os uteri. 2. A delivery preceded by a total or partial separation of the placenta. 3. A delivery complicated with premature expulsion of the umbilical cord. 4. When the child approaches by the feet, and the trunk of the body being expelled as far as the neck, the head is long retained. 5. When the shoulders are retained after the extension of the head, from their presenting their long diameter to the short one of the pelvis. 6. A labor complicated with uterine hemorrhage, convulsions, or other accidents, rendering speedy delivery necessary. 7. Where the head of the child has been extracted by the forceps, &c. 8. Weakness of the infant through prematurity or disease, either in the mother, or itself. 9. Twisting the umbilical cord round the child's neck. 10. Rupture of the cord during labor, by which the child is destroyed if not born in time to respire.

6. In all these cases, if the facts are established, can any criminal imputation be admissible ?

No.

7. Will it not weigh greatly in a woman's favor, when implicated in a charge of child-mur-

der, if she made known the fact of her pregnancy, and had prepared the necessary means for herself and expected offspring?

It will. The child may perish without any criminality on the part of its mother.

8. What are the criminal means which have been resorted to for the perpetration of infanticide?

Wounds in general, either extensive or small, as by a sharp pointed instrument.

9. Should it not be recollected that the heads of children are sometimes very much swoln by compression during a difficult and tedious labor?

Yes.

10. Ought we not, therefore, to be careful not to confound these swellings, with those which are inflicted after birth?

Yes.

11. What appears to be a common method of destroying an infant in parturition?

Guy Patin, Brendelius, and Belloc mention several instances of children being murdered by plunging needles into the head and brain while presenting at the os externum.

12. In such cases what is it necessary to do?

To shave the head, when a slight extravasation will be found around the puncture, and it is

then necessary to pursue the examination into the substance of the brain.

13. Does not this necessarily involve the necessity of an accomplice ?

Yes.

14. Into how many kinds have the means which have been resorted to in the perpetration of child-murder been divided ?

Two.

15. What are they ?

By omitting the necessary services required in behalf of the infant, and by inflicting violence.

16. How many modifications of infanticide by omission are there ?

Four.

17. What are they ?

1. Exposure to cold either in a state of nakedness, or to too much heat. In either case the detection of the murder depends greatly upon the establishment of the fact that the child has respired.

18. What is the second modification ?

Withholding the proper nourishment.

19. What is the third ?

When the child is voluntarily allowed to remain under the clothes of the mother exposed to



all the accidents which may arise from the maternal evacuations.

20. What is the fourth ?

Omitting the ligature of the umbilical cord.

21. Are authors at variance with regard to the necessity of the ligature ?

They are.

22. Does it appear to be necessary ?

We maintain the necessity of it, to be fully established, because instances enough could be brought forward where children have bled to death through this channel.

23. Is the question of the umbilical cord one of importance ?

Yes, not only of importance, but of difficulty.

24. In all examinations of contusions, what two cautions ought to be observed ?

To distinguish them, first, from the discolored spots which appear on the surface of the body at the commencement of putrefaction, and 2d, not to confound accidents which may occur during dissection with those resulting from blows and other acts of violence.

25. May prematurely tying the umbilical cord be a means of destroying the life of the child ?

Yes.

26. What invariable rule ought always to be adopted with regard to tying the cord ?

It ought never to be tied until pulsation has ceased.

27. What do you say with regard to suffocation being resorted to for the purpose of destroying the child ?

It is often resorted to.

28. In what manner ?

By applying the hand to the mouth, and smothering under bed-clothes.

29. What do you sometimes find in the mouth and nostrils ?

Dirt, and particles of foreign substances.

30. Is not the child sometimes suffocated by turning back the tongue upon the epiglottis ?

Yes, but in this case there must be either a preternatural deficiency of the fraenum, or great violence must be used.

31. Are poisons sometimes resorted to, and the inhalation of noxious vapors ?

Yes.

32. Are knots ever formed in the umbilical cord, and what effects will they produce ?

Yes. The effects of strangulation.

33. At what age is the child viable, or capable of sustaining life ?

After seven months.

34. Can a charge of infanticide be sustained before that period ?

No.

35. How much should a child weigh which is born after the seventh month ?

Not less than five pounds.

36. What should its length be after this period ?

Not less than fifteen inches.

37. What do you say with regard to the vascularity of the premature foetus ?

It is more vascular than after its prematurity. The skin is redder—the hair is of a light color.

38. Is the *membrana pupillaris* present ?

Yes, but the eyes are closed.

39. How are the fontanelles ?

They are at a distance from one another—the head is large, and the bones flexible.

40. How is the heart found on dissection ?

Disproportionately large.

41. How are the lungs ?

Small, dense, and drawn from the fore part of the cavity of the thorax.

42. How is the liver ?

Very large, approaching the umbilicus. If there is any fluid in the gall-bladder it is nearly the color of water.

43. What is Chaussier's scale of admeasurement, from which to deduce references with regard to the age of the child ?

At the full term of gestation the middle of the body of the foetus corresponds exactly with the umbilicus, at the eighth months it is two or three centimeters higher, that it approaches still nearer the sternum at the seventh month, and at the sixth falls exactly at the abdominal extremity of that bone. 'If this is true,' says Smith, 'we should conclude that when the middle of the length of the body falls at the cartilago ensiformis, or point of the breast bone, the foetus must be under the seventh month, and, of course not capable of living.'

44. In examining the corpse of a new born infant upon the charge of murder, the body near, or quite at the full period of utero-gestation, what are the questions to be asked ?

Was it born alive ? What was the manner of its death ?

45. If the foetus died several weeks before the ninth month, what will be the appearance of the body, if it remains in the uterus till that time ?

The process of maceration, well understood by anatomists will be going on, the liquor amnii acts upon the cuticle, and it peels off.

46. What will be the appearance of the body?

It becomes flaccid—ecchymosis occurs—sanguineous effusions in the cavities—the features will be sharp.

47. How may decisions be formed in cases of doubt whether the child has breathed?

From respiration and circulation.

48. Is the circulation in the foetus entirely different from that in the adult?

Yes. But the difference is pointed out by anatomists, and would take up too much time and space to recapitulate it here.

49. What will be the appearance of the lungs where respiration has not taken place?

They will resemble liver—there will be a white hue upon the surface of them—they will not cover the pericardium in this state, nor fill the thorax.

50. In this state what will they do, rise or sink in water?

Being specifically heavier than water, in this state, if thrown into it they will sink.

51. What is now their appearance when cut into?

They emit no air or blood.

52. How is the foramen ovale in the heart?

Open.

53. What will be the appearance of the diaphragm ?

It will be arched upwards.

54. Will there be blood in the umbilical vein ?

Yes.

55. Will the bladder contain urine, and the intestines meconum ?

Yes.

56. What will discoloration resemble ?

Sugillations, and not ecchymosis.

57. Must all the above organs be examined in their place ?

They must.

58. What effect will respiration have upon the color of the lungs ?

It will change them to a deep red, and they will fill the cavity of the thorax, and will be more spongy.

59. Will they sink, or swim, if now thrown upon water ?

Being now specifically lighter than water, they will swim.

60. When cut into, what appearances will present ?

Acrepitating noise, and blood will flow.

61. What will be the appearance of the blood-vessels in the lungs ?

Enlarged.

62. What constitutes the grand distinguishing feature between adult and foetal life?

Respiration.

63. What is the Docemasian, or hydrostatic test upon the lungs of a new born child?

If lungs which have never inspired, or been inflated be thrown upon water they will sink; if they have respired they will swim.

64. Is this test to be depended upon?

Not entirely of itself.

65. What are the objections to it?

We may alter their volume, color, and specific gravity by blowing into the trachea.

66. Have any doubts been raised whether artificial respiration could be effected?

Yes. Heister, Roederer, and Hebenstriet have questioned it.

67. Are their doubts correct?

No.

68. When air has been blown into the lungs in this way, how can we determine that the child has not respired?

By the absence of crepitation and blood when cut into; and by the flatness of the chest; all the air can be squeezed out, and the lungs sink.

69. Can any distension of the lungs increase their absolute weight ?

No.

70. Will breathing *necessarily* do this ?

Yes.

71. What effect has putrefaction upon the lungs ?

It renders them specifically lighter than water.

72. Which putrefies first, the lungs, or other parts of the body ?

The other parts of the body, and even the bones.

73. What are the decisions of Marc upon putrefied lungs ?

That when lungs have respired, notwithstanding they have been attacked with putrefaction, they will have a crepitus when cut into ; those which have never respired, although they float, will be destitute of this crepitus. The second is, upon squeezing out the matter of putrefaction from the lungs that have never respired, they will sink, if from a child born dead ; notwithstanding this process, if the child is born alive they will swim.

74. What effects will certain diseases have upon the lungs ?

Such diseases as tubercles, schirri, peripneu-



mony, ulcers, &c. will cause them to sink—but sound lungs ought to be the only ones on which we make our experiments.

75. What are the practical rules which should be adopted in examining lungs upon an accusation of infanticide?

The following are from Beck. 1. After having examined the general shape of the thorax, and noticed the position and color of the lungs in their cavity, they should be taken out, together with the heart. They should then be subject to a careful inspection to determine if they are sound or diseased, and if they are at all affected by putrefaction. 2. Particular attention should be paid to the temperature of the water in which the lungs are immersed. The specific gravity of water varies with its temperature. If water is too hot it will expand the lungs, and favor their floating, where there is a tendency to putrefaction. If the temperature is too low the air cells will contract, and the air will be expelled. The temperature of the water should be regulated by the surrounding atmosphere. Water should not be impregnated with *salt*: lungs might float in salt water which would sink in fresh, on account of the greater specific gravity of salt water. 3. The lungs, together with the

heart should then be placed in the water, and if they then sink, it is a proof of complete and effectual respiration. 4. If the lungs sink together with the heart, or if the floating is only partial, it is then proper to separate them, and repeat the experiments upon the lungs alone, observing whether the whole float, or, if they sink, whether any part shews any tendency to float; if so, 5, The two lobes should be separated, and the experiment repeated upon each, noticing the difference, if any, between them. If only one floats, see if it is the *right* one. According to Portal it seems that air enters the right lobe sooner than the left, and the capacity of the right lobe is greatest. 6. If both lobes sink or float but imperfectly, they should be cut into a number of pieces, taking care not to confound the fragments of one lobe with those of the other, and upon each of these the same experiments should be instituted. 7. While cutting the lungs it should be noted if there be any crepitation, if the vessels are charged with blood,—if there be any traces of disease. After having performed these different processes the conclusions to be drawn from them are evident. If the entire lungs, as well as the divisions remain on the surface of the fluid, it is a proof that the

infant enjoyed perfect respiration ; if only the right lung, or its pieces float, whilst the greater number sink, it proves that the child lived with pain, or that its lungs were diseased, or that partial floating was owing to artificial inflation ; if all the pieces sink, the inference is decisive, that the child never respired.

76. What is the test of Plocquet, of Tubingen ?

From the experiments he made to ascertain their proportional gravity he drew the conclusion that the weight of the lungs previous to respiration is *one seventieth* the weight of the whole body, whilst after that process it amounts to *one thirty-fifth*, or in other words, that the blood introduced in the lungs in consequence of respiration *doubles* their absolute weight.

77. What is the summary which M. Capuron has drawn upon the whole subject ?

1. To establish the commission of infanticide, before birth, which is identically abortion, it is requisite to prove the woman to have been pregnant with a living foetus ; to have voluntarily exposed herself to the influence of causes of miscarriage, whether general or local, and these causes to have produced their effect. 2. To establish the same crime committed during the

birth of the child it must exhibit marks of injury in the body, and these marks must be different from those of the process of parturition, as well as from any others arising from natural or spontaneous causes. 3. To prove infanticide committed after birth, it must first be shewn that the child was born alive, well formed, free from disease, and mature; consequently that it has fully respired; therefore the death must have been caused by some criminal omission, or some deadly manouvre. 4. To prove life, or respiration of the infant after birth, attention must be paid to the anatomical marks found in the breast and abdomen, the lungs and pulmonary vessels, urinary bladder, umbilical cord, arterial canal, foramen ovale, and venous duct. The lungs must be submitted to the hydrostatic test. For this purpose, however, the lungs must not be in an advanced state of putrefaction; there must have been no insufflations, and we must neither *suppose* nor *suspect* the commencement of respiration, before birth, nor during its progress. 5. Neither the hydrostatic test, nor any other can certainly or positively establish the fact of respiration, when the function has been obscurely performed, as in asphyxia, extreme weakness, or apparent death of a new

born infant. Whence it follows that the result of these proofs must be favorable to those suspected or accused of infanticide.

78. What are the laws in relation to infanticide?

They are extremely different and various in different countries. As the law now stands in England it is death, and concealment is a misdemeanor, of which persons may find a prisoner guilty, when the capital charge of murder is not made out, provided there be evidence to establish the minor offence. By an act passed in 1803, commonly called the *Ellenboro' act*, it is ordained that women tried for the murder of bastard infants, are to be tried by the same rules of evidence and presumption, as by law are allowed to take place in other trials for murder. If acquitted, and it shall appear on evidence that the prisoner was delivered of a child, which by law, would if born alive, be a bastard, she did, by secret burying, or otherwise endeavor to conceal the birth thereof, thereupon it shall be lawful for such court, before whom such prisoner shall have been tried, to adjudge that such person shall be committed to the common jail, or house of correction for any term not exceeding two years. According to Griffith in

Ryan's Manual of Medical Jurisprudence the common law is the rule in all such states in the United States, as have not special enactments. In Massachusetts, concealment of the birth of a bastard is punished by a fine not exceeding 50 pounds. For concealing the death, whether from violence or not, the mother is punished by being set on the gallows with a rope round her neck for one hour, and is to give recognizance for good behaviour at the discretion of the court. In Vermont, if a woman be delivered privately of a bastard, and it be found dead, and if there be presumptive evidence of neglect or violence on the part of the mother, the penalty is a fine not to exceed 500 dollars, and imprisonment for not more than two years; one or both at the discretion of the court. In Connecticut if a woman conceal her pregnancy and be secretly delivered of a bastard she is punishable by a fine not exceeding 150 dollars, or imprisonment for not more than three months. For concealing the death, so that it be not known whether it was born alive or not, she is to be set on a gallows with a rope round her neck, and be imprisoned for not more than one year. In New Hampshire the law for concealing the death is the same as in Massachusetts and Connecticut,

except that the imprisonment may be for two years, or in lieu of this a fine not exceeding 300 dollars. In New Jersey concealment of pregnancy is a misdemeanor, punishable by fine and imprisonment. Concealing the death is punishable by imprisonment at hard labor. In Pennsylvania it is much like that of England, except that it requires two counts, one for the murder and one for the concealment. In Rhode Island the law is much the same as that of Pennsylvania. In Louisiana the law considers infanticide as murder.

## SECTION IX.

## OF FEIGNED DISEASES.

1. Why are diseases often feigned ?

For the purpose of exciting commiseration, or escaping punishment or military duty, of getting rid of labor, fear, &c.

2. What is the first general rule given by Zaccheus for the detection of feigned diseases ?

The physician must inquire of his friends into the state of his affairs, of his moral habits, and what may be the motives for feigning himself diseased.

3. What is the second inquiry ?

Compare the disease under consideration with the cause capable of producing it.

4. What is the third rule ?

This is derived from the aversion of the person feigning disease, to take remedies.

5. What is the fourth ?

Particular attention should be paid to the symptoms present, whether they necessarily belong to the disease.

6. What is the last direction ?

To follow the course of the complaint, and at-



tend to the circumstances which naturally occur.

7. Why are convulsions sometimes feigned ?

To escape from imprisonment or punishment.

8. What is the difference between real and feigned convulsions ?

The feigned do not present that stiffness of muscles, and that resistance and rapidity of action which appear in the real.

9. What will generally detect the deceit ?

The application of a red hot iron to the surface of their bodies.

10. What disease was feigned by David, Ulysses, and Lucius Brutus ?

Insanity.

11. How may insanity when feigned, generally be detected ?

An insane person generally sleeps little, and talks much in the night : a pretender will only act his part when he supposes his actions are observed. There is also a peculiarity of action and manner in the countenance of an insane person which it is difficult to counterfeit.

12. How may feigned epilepsy generally be detected ?

By examining the pupils of the eye, which are generally dilated in a real fit, and do not

contract on the application of light. Volatile substances and other stimulants do not affect the patient. The tongue is generally bitten in the real. We should observe whether the patient falls to the ground.

13. What are the surest signs of the disease?

A loss of feeling, so that sternutatories and the actual cautery, do not affect the patient.

14. What will generally detect the fraud?

The application of the actual cautery.

15. What fact should be kept in mind respecting this disease?

That the real epileptic is desirous of concealing his situation, while the feigned talks about it.

16. Is hysteria often feigned?

Yes.

17. What will detect it?

Strong sternutatories, the actual cautery, &c.

18. What peculiarity of symptoms does catalepsy possess?

The patient remains insensible an indefinite length of time, and generally dies.

19. In catalepsy which we suspect to be feigned what should we recommend?

Threaten the severest remedies, and the application of the actual cautery.

20. When should a patient supposed to be dead from catalepsy be buried ?

Not until putrefaction has taken place.

21. Can a trance be actually feigned ?

It is generally considered impossible.

22. How do you know when melancholy, or chronic insanity is feigned ?

Melancholics never attempt any violence, except upon themselves. Maniacs attempt to injure others. Maniacs withstand cold longer than other people, and are less sensible to the operation of medicine.

23. How is the deception of suspending pulsation at the wrist effected ?

By tying ligatures round the arm, and by hanging the arm over the back of a chair, or by pressing the finger in the armpit.

24. Has the action of the heart ever been voluntarily affected for any length of time and again been restored ?

Yes.

25. How can you determine when pain is feigned ?

Examine the seat of the pain, manner of attack, and see whether the patient has been subject to them.

26. Should the pain be in the head, what will sometimes be the appearances ?

The eyes will be red, the temporal arteries will throb violently, and the pulse will be quick and full. The countenance will sometimes be a good indication.

27. After all are we liable to deception?

Yes.

28. How may ulcers be kept up?

By the application of caustic, copper, &c. bound upon the sore.

29. Are not these applications dangerous in such cases?

Yes.

30. What have sometimes been used by those who have feigned cachexy and jaundice?

Pigments, or paints.

31. How is the fraud detected?

In jaundice we can judge from the loss of appetite, and from the clay color of the stools, and from no one being able to paint the adnata of the eyes. In cachexy there is generally much weakness, swelling of the legs, &c.

32. How can long fasting be detected?

By long, patient, and untiring watchfulness over the suspected individual.

33. How has feigned voiding bloody urine been effected?

By eating the India fig, or the prickly pear.

34. How may incontinence of urine be detected ?

By giving a small dose of opium, at night, and introducing the catheter without his knowledge. If the urine has passed off guttatim, or by drops, none will pass through the catheter.

35. How can the imposition of passing gravel and stone be detected ?

By a chemical analysis of the calculus.

36. How can feigned deafness be detected ?

A loud shrill noise in the ear of a deaf person occasions great pain. Dropping a piece of money unexpectedly, will sometimes cause the pretended deaf person to look round.

37. How may pretended blindness be detected ?

If the pupil contracts on the application of light we may apprehend deception, though in some cases of amaurosis the pupil is sensible of the application of light. By reflecting the direct rays of the sun by means of a mirror the deception will be immediately discovered.

38. What is a very remarkable case related of a young soldier in Europe ?

‘ When engaged in duty he declared that he suddenly became blind. He was taken to the Hospital, and many sovereign remedies applied to restore his sight, but none had the effect. In

the mean time the young man himself strenuously desired that the most vigorous means might be employed for his restoration. He had rather suffer any pain or inconvenience than not to be restored to sight. The chief surgeon of the Hospital suspected the fraud. He ordered the young man to be placed on a high bank of a river, without giving him any knowledge of his situation, and turning his face towards the water, he ordered him to march. He walked forward without any apparent apprehension of danger, and was immediately plunged into the river below. Two men were prepared to take him out of the water, which they did, while the spectators, in great sympathy for the soldier, expressed their indignation at the surgeon. He again examined the eyes of the young man, which were apparently perfectly sound, with regular dilatations and contractions of the pupils, and told him that he was not so easily deceived, and informed him that he suspected the fraud, and that if he would acknowledge it, he should no longer be compelled to go into the army. The young man immediately seized a fine printed book that was lying by him, and instantly read it aloud, to the great astonishment of the spectators.'

## SECTION X.

## OF POISONS.

1. What is meant by poisoning ?

They may be defined as substances which being taken into the stomach in small quantities are capable of destroying life.

2. Strictly speaking why is there no such thing as poison ?

Because by degrees large quantities of reputed poisons may be taken without producing any immediate dangerous effect.

3. Give us some examples ?

Opium, tobacco, and the narcotics generally.

4. What rule is to be observed in the administration of these medicines, when a patient has discontinued their use for a while ?

To begin again in small quantities and gradually increase.

5. Are some substances poisonous to man, which are not so to animals ?

Yes.

6. What dependence, then, can you place in giving suspected food to brutes as a test ?

Not any.

7. Does any thing depend upon the predisposition of the system in relation to poisoning ?

Much.

8. What constitutes the criminality of the act in cases of poisoning ?

The intention.

9. How may poisons be introduced into the system ?

By the nostrils, by the mouth, by the lungs, by the anus, and by the skin.

10. How does Orfila classify poisons ?

Into irritating, narcotic, narcotico-acrid, and septic.

11. Will you name some of the most irritating poisons ?

The metallic salts, such as preparations of arsenic, mercury, silver, copper, antimony, lead, &c. &c. The mineral acids, the sulphuric, nitric, muriatic, &c.

12. In what state are the metals most poisonous ?

In a state of oxyde.

13. What is the cause of the causticity and poison of a metal ?

Oxygen combined with it.

14. When you are called to investigate the cause of death in cases of poisoning, what are you first to do ?



We are to inquire into the general health of the subject, whether before his death he was healthy or sickly, whether he was in the habit of taking medicines and what those medicines were, what food he had last eaten, or whether he was in the habit of drinking to excess.

15. Should we not examine into the symptoms attending the last stages of life ?

Yes.

16. If, upon examination we cannot satisfy ourselves as to the cause of death, what should we next do ?

We should open the body, take out the stomach and tie it at the cardiac and pyloric orifices, and if necessary, subject the contents of it to chemical analysis.

17. Shall we not sometimes find poison in the stomach without this analysis ?

Yes, we sometimes discover vegetable poisons in the stomach, such as the leaves and seed of the conium, or cicuta, the seeds of stramonium, or portions of poisonous mushrooms. Sometimes we shall find opium and other narcotic extracts, when taken in large quantities, and sometimes particles of the mineral poisons, such as arsenic, the muriate of mercury, or copper adhering to the villous coat of the stomach.

18. When we find none of these things what do we then do ?

Apply our tests, which we shall explain when speaking of individual poisons.

19. Ought we not to examine the other viscera besides the stomach ?

Yes, the intestines, the brain, the blood-vessels,

20. Does not poison sometimes exert its influence on the nervous system ?

Yes, but it is difficult to detect it here.

21. What does Marc observe upon this subject ?

That unless all the different viscera are examined, it is doubtful how far surgical evidence is admissible in a court of justice. We should be careful not to give an opinion that a person has been poisoned without being able to produce irrefragable proof of the fact.

22. Are the symptoms produced by poison at all times uniform ?

No, convulsions, extreme pain and other effects which are mentioned as consequences do not always exist; in forming an opinion, therefore, these facts should be taken into consideration.

23. Is it not a very difficult question to determine whether poisoning is the result of homicide or suicide ?

Yes.

24. How can we form an opinion ?

From moral considerations.

25. What are they, according to Beck, which are noticed by Fodere ?

The previous state of mind of the deceased, whether he had been subject to delirium ; also if he has met with losses, has been disappointed in his hopes, or is suffering under disgrace. Also whether any of the persons with whom he lived or associated had any interest in his death. The season of the year also deserves consideration. Suicides, he says, are more frequent between the solstices and equinoxes. We should also ascertain whether the patient, instead of complaining, remains quiet, seeks solitude, and refuses the aid of medical men, and of medicines. Any kind of writing left by the individual to express his last wishes, as it is the most common, so it is the most certain proof of self destruction. But the finding a part of the poison in the room, or in his pockets, is evidently a very equivocal proof, since it may be quite as easily put there by others as by himself.

26. What are some of the diseases which may be mistaken for the effects of poison ?

Idiosyncrasy, indigestion, and sudden illness.

27. May not the bile sometimes become so acrimonious as to produce effects similar to poison?

Yes.

28. Are not poisons sometimes introduced into the system after death with a view to accuse an innocent person of the crime?

Such acts are said to have been committed.

29. When they have been injected per ano, what will be their appearances if of a corrosive character?

It is only when they are applied an hour or two after death, that the inflammatory phenomena, accompanied by the line of demarcation are capable of occurring. (Orfila.)

30. How may we determine whether an acrid corrosive mineral poison has been taken, and is the cause of the disease of which the patient complains?

When he has observed that the food or drink which was its vehicle had not its ordinary taste, if he has felt a heat or irritation or an extraordinary and sudden dryness at the root of the mouth or oesophagus with a constriction or sense of strangling in those parts—if this be succeeded by obstinate anxiety to vomit, and sharp pains in the stomach and intestines, if

there be great thirst, copious discharges by vomiting, and by stool accompanied by tenesmus, and followed by hiccup, by a sense of constriction across the diaphragm and a difficulty of breathing, if there be great pain in the region of the kidneys, followed by strangury, if convulsions, cramps of the hands, trembling of the lips, extinction of the voice, repeated fainting, cold sweats, and a small chorded, and irregular pulse be present ; and if, in addition to all these the intellectual faculties remain perfect until the disease arrives near its fatal termination.

(1. *Arsenic.*)

31. Why do we first speak of *arsenic*, in treating upon poisons ?

Because it is one of the most virulent of the poisons, and one which is more frequently resorted to for the purpose of inducing death than any other.

32. Is arsenic frequently found native ?

Yes, but it is more frequently combined with other metals.

33. Has not the oxyde of this metal sometimes been mistaken for sugar ?

Yes, and the most fatal results have followed the use of it.

34. How large a dose will it take to destroy life ?

This depends upon the state of the system, and the predisposition of it. It takes a much larger dose to operate upon a full than an empty stomach. In general, a very few grains are sufficient to induce death. George Beals, of Springfield, after having eaten a hearty supper of beef steaks, swallowed an ounce and a half at a dose. He was immediately after seized with violent spasms and vomiting, and ejected the contents of the stomach, and ultimately recovered.

35. What are some of the symptoms of the poison of arsenic ?

A pricking and burning sensation at the stomach ; great heat in the mouth ; the teeth become affected ; violent griping in the bowels ; vomiting succeeds, and the stomach and mouth become corrugated ; an unquenchable thirst ; anxiety, strictures in the region of the precordia and restlessness. In those who die, great fever, hiccup, inflammation of the stomach and intestines, terminating in mortification. The discharge from the stomach is black and fetid, and death soon closes the scene. The coats of the stomach and duodenum are often thin as paper.

36. What effect has it upon the genitals of men ?

It is said that they quickly mortify from the poison of arsenic.

37. How long does it take for the poison of arsenic to destroy life ?

It varies in different subjects. Sometimes it destroys life under excruciating circumstances in four hours. Sometimes it is forty-eight hours, and often longer in producing this effect.

38. Are there any other ways by which arsenic may induce death than its operation on the stomach and bowels ?

From some observations of Mr. Brodie it would seem that death is not induced from this poison from the inflammation of the stomach, but that the symptoms to be referred to it, may be ascribed to the influence it has upon the nervous system, upon the heart, and upon the alimentary canal ; and this opinion seems to be corroborated by numerous dissections. Smith says the fact is too well known to need repetition, that poisons, and specifically arsenic, will cause death, though not a particle of it remains in the body.

39. What is the appearance of the body of a person who has died from the poison of arsenic ?

According to Dease it turns suddenly putrid, and becomes horribly inflated ; the head, tongue, fauces, monstously swelled and black ; the whole carcase emits the most putrid stench, and the scarf skin peels off on touching it. The stomach appears inflated, often inflamed, and gangrenous spots or rather suffusions here and there spread over its surface, and the blood-vessels distended. When opened the villous coat has all the appearance of having suffered great inflammation ; often an eschar is observed, encircled by an inflammatory ring. An inversion of the alimentary canal is also frequently seen.

40. What are some of the remedies for the poison of arsenic ?

A speedy emetic of sulphate of zinc or of copper, followed by cathartics and mucilages. Orfila says a table spoonful of mustard seed swallowed whole will cause the patient immediately to eject the contents of the stomach. This is proper in other cases of poisoning. Powdered charcoal is said to decompose the poison. Tumblers of sugared water may be drank with mucilages. But above all the stomach pump, the application and use of which you will find in writers upon toxicology.

41. When called to the body of a person sus-



pected to have been poisoned with arsenic, or other poisons, what, in addition to what we have already said, should be done ?

We should, if possible save what was ejected from the stomach, and what was discharged from the bowels in separate vessels. We should likewise separate the more solid contents which may be found in the stomach from the liquid and put them into separate vessels, and repeatedly wash them in cold water and filter them upon blotting paper, and subject the residuum to chemical tests, and here, perhaps, it may be made a question whether any thing ought to be received as positive proof by a jury but the production of arsenic in a metallic form, taken from the stomach of the deceased.

42. How many parts of cold water does it require completely to dissolve one part of arsenic ?

Eighty.

43. What do you say of tests ?

They are indispensably necessary in all cases of poisoning, but to give you an account of the processes of all of them which have been recommended by writers upon the subject of poisons would require a large volume. We can therefore only refer you to the writings of Christison, Orfila, Paris, Marcet, Wallaston, Gorham,

Brande, Silliman, and most standard chemical and medical writers, either of whom may be recommended, and close the subject of tests with the celebrated one of Cooper.

44. What is it ?

Take a conical wine-glass, or a watch-glass, or a clean bright piece of a pane of glass. Put on it the 16th part of a grain of white arsenic, or any portion of a grain that may be visible to the naked eye ; drop on it one or two small drops of chromate of potash, where the excess of the alkali has been neutralized by nitric or acetic acid, according to the usual process of the manufacturers of the chromate of lead. The arsenic after three hours will give a decided green color.

(2. *Mercury.*)

45. What effect has mercury when taken into the stomach in a crude state ?

It generally passes through the body unaltered.

46. Why is it dangerous giving it in a crude state ?

Because from its weight it may perforate the intestines.

47. Is the question settled whether it exerts

purely a mechanical, or whether a chemical effect is combined with it ?

It probably is not.

48. Is it not dangerous wearing the quicksilver girdle for the itch ?

Yes.

49. Why ?

Because, according to some experiments of Mr. Farraday, it would seem that at some temperatures of the atmosphere, mercury is surrounded by an atmosphere of the same substance, and that it unites easily with fat or oil, and perhaps sweat.

50. What are some of the oxydes or chlorides of mercury which act as violent poisons ?

Corrosive sublimate, or muriate of mercury, the red oxyde of mercury, or red precipitate, turpeth mineral, &c. &c.

51. What effect has an over dose of corrosive sublimate ?

When taken in the quantity of a few grains, it produces sickness, griping, pain in the stomach and bowels, vomiting and purging of frothy mucus ; sometimes bloody stools, distention of the belly, suppression of urine, heat in the mouth and throat. The pain and stricture in the mouth and throat are sometimes so severe

as to cause the greatest distress in swallowing even the mildest fluids. It operates very suddenly and corrodes and destroys the parts to which it is applied. It destroys life, according to Mr. Brodie by acting chemically on the mucous membrane of the stomach and destroying its texture.

52. What are the appearances on dissection?

The oesophagus, particularly the lower part, is generally inflamed; the stomach is sometimes eroded, and its villous coat covered with dark colored spots, indicating inflammation which extends to the intestines. They generally contain a small quantity of mucous fluid mixed with blood. The liver and kidneys are often found inflamed, and the uterus in females is generally similarly affected. The external appearance of the body is often of a common color.

53. Does it not sometimes destroy life by applying it externally to a wound or ulcer on the skin?

Yes, and salivation seems to be a constant effect from this mode of application.

54. What are some of the remedies for the poison of corrosive sublimate?

According to Orfila, Paris, and others, the white of eggs diluted with water. It decompo-

ses the salt. Gluten of wheat is said to have the same effect. Plentiful dilution and evacuation by vomiting. If the whites of eggs are not at hand, milk and water may be employed with great success.

55. Is there not a great resemblance between the effects of irritant poisons and cholera morbus?

Yes. Hence the necessity of resorting to tests.

56. What are some of the tests of corrosive sublimate?

In regard to tests the matter evacuated and the contents of the stomach should be examined in the same way as directed for arsenic. The oxymuriate of mercury may be known by its communicating a brassy styptic taste. The substance is white. If any powder is suspected to contain this salt, expose it to heat in a coated tube without any carbonaceous admixture, when corrosive sublimate, if present, will rise and line the interior surface with a shining white crust. This crust is to be dissolved in distilled water, and assayed with the following tests:—

1. Lime water will produce, if the expected solution contain this salt, a precipitate of an orange yellow color. 2. A single drop of a di-

lute solution of subcarbonate of potash will produce a white precipitate, but on a still farther addition of the test an orange colored sediment will be formed. The carbonate of soda has the same effect. 3. Sulphuretted water throws down a dark colored sediment, which when dried and strongly heated is wholly volatilized without any odor of garlic. 4. Nitrate of tin is a very delicate test, one drop produces an immediate and copious dark brown precipitate. This test Dr. Bostock says is capable of detecting the three millionth part of a grain in solution. 5. A solution of corrosive sublimate, even though very weak instantly tarnishes polished silver and gives it a dull pewter color, not easily removed. 6. The test of Cooper so celebrated in the detection of arsenic is equally delicate in the detection of corrosive sublimate, viz. one or two small drops of chromate of potash prepared in the same way as for arsenic will give in one minute to a solution of corrosive sublimate a distinct orange color.

(3. *Copper.*)

57. Are all the preparations of copper poisonous?

Yes. Even copper in its native state taken into the stomach is poison.

58. What effect will binding a piece of copper, or a cent upon an ulcer have ?

It will form the sub-acetate or verdigris, and keep the sore discharging.

59. What are some of the most powerful of the preparations of copper ?

The nitrate, the sub-acetate, or verdigris, and the sulphate.

60. Ought cooking utensils to be made of copper, and lined with it ?

No, as the salts of copper unite with acids and render the food poisonous.

61. What effect has a brass cock upon cider which runs through it ?

It often renders it poisonous in the same way, by impregnating it with the copper in the brass.

62. What are some of the effects of copper when taken into the stomach ?

It produces thirst, pain in the stomach and sides, restlessness, sometimes a rash on the surface of the body ; frequent and small pulse, violent purging, vomiting and retching, hiccup, delirium, fainting, convulsions, inflammation of the stomach and death. (Marc.)

63. Are not the preparations of copper nauseous to the taste ?

Yes, on that account they are not so frequent-

ly resorted to for the purpose of inducing death, but they are sometimes used. They are slower in their operation than corrosive sublimate.

64. What are some of the appearances on dissection?

Much the same as from arsenic, corrosive sublimate, &c. Inflammation will sometimes be found in the brain, though rarely.

65. What are some of the antidotes to the poison of copper?

A powerful emetic of sulphate of zinc where the copper does not produce vomiting of itself, which it sometimes does, as the sulphate of copper is an excellent emetic. When the coin has been swallowed, take large doses of castor oil, and avoid acids. Sugar is said to be the best remedy for verdigris. According to Dumas, Milne Edwards, &c. iron filings.

66. What are some of the tests of copper?

1. The test of chromate of potash of Cooper as directed for arsenic, corrosive sublimate, &c. The chromate of potash instantly turns sulphate of copper orange brown. We shall scarcely be warranted in pronouncing that copper has been swallowed until we have actually obtained the metal. 2. According to Henry, if copper is suspected in any liquor, its presence will be as-



certained by adding a solution of pure ammonia which strikes a beautiful blue color. If the solution be very dilute it may be concentrated by evaporation, and if the liquor contains considerable of an excess of acid, like that used to preserve pickles, as much of the alkali must be added as is more than sufficient to saturate the acid. Infusions of nutgalls precipitate it of a green color, it afterwards becomes red. If the liquor be acidulated for the purpose, and the blade of a polished knife be immersed for a short time in the liquid, if copper be present the knife will be covered with copper.

(4. *Lead.*)

67. What are some of the most poisonous preparations of lead ?

The acetate, or sugar of lead, and the red and white oxyde.

68. Is not the external application of sugar of lead sometimes dangerous ?

Yes. Sometimes to open wounds and ulcers, producing palsy, colic, &c.

69. Is lead quick or slow in its operation ?

It is one of the slowest of the poisons.

70. Is not sugar of lead sometimes used in the adulteration of wine ?

Yes, commonly, and frequently, converting sour wine into sweet and pleasant, but, at the same time into a deadly poison.

71. Is it not pernicious to keep pickles, and sweetmeats in glazed earthen vessels ?

Yes. One of the materials of the glazing is lead, and the acid acting upon it decomposes it, and unites with the lead, and renders the acid a poison.

72. What are some of the effects of poison from lead ?

A general uneasiness is felt, nausea and vomiting, syncope, &c. Colic follows, frequently terminating in colica pictorum, or painters' colic. In this complaint the mouth is dry, not much fever, sickness and vomiting which frequently last several days. The abdomen is drawn towards the navel, which becomes more manifest as the pain increases. Great costiveness and difficulty of voiding the feces. Palsy of the extremities is a concomitant attendant. It also produces colic, tremors, debility, phthisic, palsy, convulsions, and death.

73. What are some of the most appropriate remedies ?

Paris says mercury will counteract the poison of lead. Large doses of tartar emetic have been

given. Opium when much pain or spasm are present—the warm bath, castor oil, or other gentle cathartics or emetics, flowers of sulphur, &c. Epsom salts, glauber salts.

74. What are the morbid appearances on dissection ?

None have been discovered.

75. What are some of the tests ?

Alkaline sulphurets, and sulphuretted hydrogen. These added to liquor containing lead give a blackish precipitate. Sulphuret of potash and ammonia will give the same results. Cooper says preparations of lead dissolved in water can be precipitated either by seltzer water, which forms a white carbonate of lead, or by chromate of potash which forms a yellow chromate of lead. Chromate of potash also turns white lead yellow.

(5. *Antimony.*)

76. What is the most poisonous of the preparations of antimony ?

Tartar emetic, and it is more frequently used than any other preparation for the purpose of poisoning.

77. How much of it may be given with safety at a dose ?

If the article is perfectly pure, more than three grains of it taken into the stomach is dangerous.

78. How do large doses operate ?

They sometimes induce death, and act as direct sedatives.

79. What are some of the symptoms occasioned by an over-dose of tartar emetic ?

A rough metallic taste, nausea, copious vomiting, frequent hiccup, cardialgia, heat and pain in the stomach, colic, inflation of the bowels, copious stools, small and quick pulse, difficult breathing, vertigo, loss of sense, convulsions, cramp in the stomach and legs, prostration of the strength, and death.

80. What are some of the remedies ?

Opium, when the effect is unusually violent. Decoctions of oak bark, of peruvian bark, strong tea, and other astringents. The principal dependence ought to be, however, upon diluents and mucilaginous drinks, which remove the poison from the stomach. Tumblers of sugared water. In addition to opium a blister should be applied to the pit of the stomach.

81. What are some of the tests ?

The tincture of galls in alkohol. With this it affords a copious, curdy precipitate of a dirty

yellow color. Lime water affords a copious curdy precipitate, which is re-dissolved with facility by nitric acid. Barytic water produces the same effect.

82. What is the remedy for the poison of nitrate of silver?

Common salt dissolved in water. It produces an insoluble muriate which has no power on the system.

83. What is the remedy for the poison of tin?  
Milk, which it completely coagulates.

84. What for sulphate of zinc?

Warm water to evacuate the stomach, emollient drinks, milk, &c.

85. What for the other mineral poisons?

Nearly the same as for arsenic. The sulphates of soda and magnesia are the chief antidotes.

86. Is not nitre, or saltpetre often taken by mistake for other salts?

Yes, and it acts as a corrosive poison.

87. What is the remedy for an over dose of nitre?

A speedy and powerful emetic. Cooper says give a glass of brandy and then warm water.

(6. *Mineral Acids.*)

88. What are the effects of an over dose of the mineral acids ?

The most violent pain in the mouth, throat and stomach, occur immediately, with excessive vomiting of a yellow matter ; purging succeeds, strangury, and painful tenesmus. The surface of the body is covered with a cold sweat.

89. What does Male say of them ?

That death is often a speedy, but not a sudden consequence of these poisons. If the unfortunate person does not soon fall a sacrifice to their violent action, his future life is generally miserable ; frequent vomiting, emaciation, excessive costiveness ; fetid salivation, exfoliation of the membrane lining the mouth, oesophagus and stomach, universal pains, and premature old age hurry him to an early grave.

90. What are the remedies ?

Orfila says the result of the many trials he has made, is that calcined magnesia is the best antidote to the acids.

91. What is the test for muriatic acid ?

It is by adding a quantity of nitrate of silver to the filtered contents of the stomach. A flaky white precipitate falls, which upon exposure to light becomes bluish, and afterwards black.

The nitrate of mercury is a very delicate test of this acid, and if the smallest quantity be present a dark colored precipitate is deposited.

92. What is the test for sulphuric acid ?

A solution of barytes. If the smallest portion of the acid be present a precipitate will fall which is not soluble in nitric acid. There will be an effervescence upon the addition of chalk, potash, and soda.

93. What is the test for nitric acid ?

All animal substances will be stained of a yellow color by it. Its presence may be ascertained by warming a portion of the suspected fluid, and adding to it some sulphuric acid ; if a glass stopper moistened with pure ammonia be held over the vessel, white clouds will appear rising from the stopper.

#### (7. *Vegetable Poisons.*)

94. Are not vegetable poisons sometimes resorted to for the purpose of inducing death ?

Yes, very often.

95. What are some of the most important of them ?

Opium, Hyosciamus, (henbane.) Prussic acid. Solanum dulcamara, (nightshade.) Taxus baccata. Lactuca virosa (green lettuce.) Atropa belladonna (deadly nightshade.) Datura

stramonium (thorn apple.) *Nicotiana tabacum* (tobacco.) *Digitalis purpurea* (fox glove.) *Conium maculatum* (poison hemlock.) *Cicuta maculata*, et *virosa* (water hemlock.) *Laurus camphora* (camphor.) *Cocculus indicus* (India cockle.) Poisonous mushrooms. Alcohol. *Secale cornutum* (spurred rye.) *Spigelia Marylandica* (Pink-root.) *Kalmia latifolia*, and *angustifolia* (Laurel.) *Sanguinaria canadensis* (blood-root.) *Veratrum* (hellebore.) *Brionica dioica* (briony.) *Momordica elaterium* (wild cucumber.) *Curcumis colocynthis* (bitter apple.) *Stalagmatis cambogiodes* (gamboge.) *Strychnos nux vomica* (dog's bane.) Strychnine, *Euphorbia officinarum* (Euphorbium) and several other species of euphorbium. *Juniperus sabina* (savin.) *Rhus radicans*, and *toxicodendron* (poison sumach.) *Anemone pulsatilla*, and several other species of wind flower. *Iris versicolor* (blue flag.) *Aconitum* or *napellus* (wolf's bane,) and other species. Various species of *ranunculus* (crow-foot.) *Colchicum autumnale* (meadow-saffron.) *Delphinium stavesagra* (larkspur.) *Narcissus pseudo-narcissus* (daffodil.) *Lobelia inflata* (devil's pepper, the Thomson cure all) and other species. *Clematis vitalba* (virgin's bower) and other species. *Phytolacca decandra*



(crow berry.) *Croton tiglium* (croton seed and oil.) *Arum maculatum* (Indian turnip.) *Ictodes foetidus* (skunk cabbage,) and many other plants too numerous to mention.

96. What are some of the rules for distinguishing poisonous plants ?

1. Plants with 5 stamens and 1 pistil with a dull colored lurid corol, and of a nauseous smell are always poisonous, as tobacco, thorn apple, henbane, nightshade. 2. Umbelliferous plants of the aquatic kind and a nauseous smell are always poisonous. But if the smell is pleasant, and they grow in dry land they are not poisonous, as fennel, dill, coriander, sweet-cicily. (Smith) 3. Plants with labiate corols, and seeds in capsules, frequently poisonous, as snap-dragon, fox-glove. 4. Plants from which issue a milky juice on being broken are poisonous, unless they bear compound flowers, as milkweed, dogbane. (Milne.) 5. Plants having an appendage to the calyx or corol, and eight or more stamens, generally poisonous. (Linneus.) *General rule.* Plants with few stamens not frequently poisonous, except the number be five ; but if the number be 12 or more, and the smell nauseous, heavy and sickly, the plants are generally poisonous. (Milne. Botanical Dictionary.)

*Opium.* 97. Is not opium frequently resorted to for the purpose of poisoning?

Yes, opium and its different preparations are often resorted to for this purpose.

98. What are some of the symptoms occasioned by an over dose of opium, or its preparations?

Giddiness, confusion of sight, wildness of the eyes, palpitations, loss of memory, stupor, nausea, vomiting, great distention of the stomach, universal twitchings and convulsions. It is the general belief that opium and the narcotics generally, operate upon the nervous system and brain; but from some dissections of those who have died from taking an over dose it appears that it produces inflammation of the stomach, which speedily terminates in gangrene.

99. What is the treatment for an over dose of opium?

Powerful emetics, blisters, friction over the whole body, vinegar, strong stimulants, lemon juice—the patient should be made to stand on his feet, and exercise if possible. Stimulating injections, the stomach pump, &c.

100. What is the appearance of persons who take opium to excess?

They are enervated and soon become old;

when deprived of it they are faint, and experience languor and debility, like those who indulge to excess in spirituous liquors, whom they greatly resemble. The habitual use produces alienation of mind.

101. Is it not a dangerous practice to give opium, paregoric, and Godfrey's cordial to children to still their cries ?

Yes, the practice cannot be too severely reprobated. Many children are yearly cut off by these preparations ; or if they are not destroyed they at least become stupid, inactive and rickety.

102. Is not the *Datura stramonium* a powerful narcotic poison ?

Yes.

103. What are some of the symptoms of this poison ?

The first sensible effect is in the sight, great dilatation of the pupil ; vision is indistinct and double—objects are multiplied, diversified, and variously colored—the patient cannot see clearly, nor discern a small object, such as a pin or needle, he sees objects in the room which do not exist, has numbness in the head, and vertigo, his speech is affected, his voice falters, his tongue becomes parylytic, and when he attempts to put it out he imitates the motion of a person

in a nervous fever who attempts to do it—the whole nervous system is disordered, various parts of the body become paralytic; it affects the mental faculties. The imagination is disturbed by fear. The mind is affected with fearful apprehensions, and the patient dies in 24 hours where the dose has been sufficient to destroy life. The seeds are frequently eaten, which are more powerful than the other parts of the plant.

104. What are the remedies for an over dose?

Powerful emetics, large doses of vegetable acids, such as lemons, vinegar, &c. Plentiful dilution, and mucilaginous drinks.

*Of the different species of Hemlock.*

105. What are some of the effects of an over dose of conium maculatum?

Nausea, faltering of the voice, dimness of sight, anxiety, tremors, paralysis, and all the symptoms in common with stramonium.

106. What are the proper remedies?

Emetics, and strong vinegar.

107. Is not this plant sometimes mistaken for parsley?

Yes, it grows in gardens, and greatly resembles this plant.

108. Has not the *cicuta maculata* been mistaken for carraway?

Yes, and many children have lost their lives by it.

109. What are the symptoms?

Much the same as from the other narcotic poisons.

110. Remedies?

Vinegar, and emetics.

111. What are the symptoms of the poison of hyosciamus?

Much the same as from the other vegetable narcotic poisons. A remarkable instance of the dreadful madness occasioned to nine persons from eating the root, attended with the remarkable circumstance that after their recovery for some days all objects appeared blood-red, is recorded in the English Philosophical Journal.

112. What are the remedies?

The same as for stramonium. Powerful emetics, and the vegetable acids.

Our observations upon poisons might be extended to an indefinite length, but the above observations, on some of the most powerful of them, are deemed to be sufficient for a compendium like this. The curious reader, and the practical one, is referred to the inestimable works of Christison, Orfila, Beck, and others, for further information on this subject.

## SECTION XI.

## OF WOUNDS.

“Whoso sheddeth man’s blood by man shall his blood be shed.”—*Scripture.*

1. Why is the subject of wounds of great importance in legal medicine ?

Because they are the means by which most murders are committed, and other acts of violence.

2. In all cases of wounds what ought we first to be able to tell ?

Whether they were accidental, or by design.

3. In every such investigation how many physicians ought there to be present ?

At least two.

4. What should be their duty ?

To note down every circumstance which appears to be of the least importance.

5. By what officer, in a case of supposed murder, is the evidence of a physician required, or in a case of doubt ?

By the Coroner.

6. Can the Coroner act unless the body can be found ?

No.

7. When a body is found in the streets, fields, or water, what must be done with it?

It should be removed to the nearest house but not out of the parish.

8. What should be first ascertained?

Whether the subject be actually dead, or if any spark of life remain, endeavor to excite it into action.

9. What do you say with regard to the situation of the body?

It should be accurately noted.

10. What is the first question that occurs?

It is whether the deceased died a natural or a violent death.

11. If a natural death, what is the inquiry?

What was the cause of it.

12. If a violent death, what is the inquiry?

Was the violence committed on the spot where the body was found, or elsewhere, and the body carried there.

13. What is the second inquiry?

Was the violence committed by himself, or another.

14. What is the third inquiry?

By what means was the violence committed.

15. If the coroner is at a distance and cannot immediately attend, what should be done?

His consent should be obtained for immediate anatomical examination, before putrefaction takes place, and from the state of it we should endeavor to ascertain how long the body has been dead.

16. From the state of the body what should we endeavor to ascertain?

By whom he was last seen, how long he had been dead, and whether he had been known to labor under previous disease.

17. What parts of the body should be first examined?

The external, and these very minutely, to ascertain whether there are any wounds, bruises, fractures, &c. capable of inducing death.

18. From these examinations, if we are not satisfied of the cause of death, what should we next do?

Examine the internal, beginning with the head, and following with the thorax, the cavity of the abdomen, &c.

19. Can we be too minute in our examinations?  
No.

20. Should every occurrence in order, be minutely noted down?



Yes.

21. What should a physician found his opinion wholly upon?

Demonstrative proofs, for his evidence whether founded upon experiment, or not, is assumed by the jury as fact merely on his authority as a professional man.

22. Are not the above observations applicable to all cases of sudden death where a jury is called to investigate the cause?

Yes.

23. What are Beck's observations on this subject?

'From the period when the dissector commences until he concludes, there should be a clerk at hand taking down all the facts which he may communicate, and this should not be delayed until the examination is completed, as many circumstances of importance may otherwise escape his memory.'

24. How should all wounds be probed?

Cautiously, not to make them larger than they were before probing.

25. Should not a distinction be made between wounds occasioned by violence and those which are the effects of previous injury?

Yes.

26. In what position should the body be placed for examination ?

Where there is a great influx of light.

27. Besides anatomical, should not other questions be asked ?

Yes, we should inquire the age, and habits of life of the patient ; the nature of the instrument by which the wound was inflicted, &c.

28. Into how many classes may wounds be divided ?

Into four.

29. What are they ?

First mortal, 2d dangerous, 3d accidentally mortal, 4th certainly not mortal.

30. What is an absolutely fatal wound ?

Where no intervening disease takes place to destroy the patient.

31. What are the most fatal wounds ?

Contused and lacerated wounds in important parts.

32. In what parts do concealed and hidden wounds generally prove fatal ?

In the brain.

33. What wounds are the most difficult to heal ?

Round wounds, and poisoned wounds.

34. To what subjects are large wounds particularly dangerous ?

To the aged and debilitated.

35. Into how many kinds may fatal wounds be divided ?

Into five.

36. What is the first division ?

Wounds which destroy the influx of nervous energy.

37. What is the second ?

Wounds of the heart and of its ventricles.

38. What is the third ?

Wounds of very large blood-vessels.

39. What is the fourth ?

Those which affect respiration.

40. What is the fifth ?

Those which destroy the continuity of parts necessary to the above parts.

41. To what class belong wounds which destroy the influx of nervous energy ?

Wounds of the head and brain.

42. What wounds of the head are not absolutely mortal ?

External wounds of the head. Internal wounds unaccompanied by injury of the brain—wounds of the dura mater where no great blood-vessel is injured.

43. What wounds of the brain are to be considered absolutely mortal ?

Wounds of the dura mater, and its sinus and great arteries. Wounds of the skull attended with great extravasations which cannot be evacuated—wounds in the bottom of the skull, the ethmoid bone, &c. All wounds of the cerebellum, and of the origin of the spinal marrow.

44. What wounds of the brain does Prof. Stringham say should be pronounced absolutely fatal.

Wounds of the choroid plexus, cerebellum, and cerebrum.

45. Is the latter part of his observation correct, or are all wounds of the cerebrum necessarily fatal ?

No, we know very frequent instances of the contrary.

46. Are all wounds of the stomach necessarily fatal ?

No. Cases often occur of recoveries. The case now exhibiting by Dr. Beaumont is an interesting example.

47. What says John Bell upon the subject ?

That all wounds of the stomach are necessarily fatal.

48. Are all wounds of the intestines necessarily fatal ?

No.

49. What wounds of them are highly dangerous ?

Transverse wounds of them, and wounds of the smaller intestines.

50. What wounds of the intestines are absolutely mortal ?

An entire division of the smaller intestines at their upper part.

51. From what arises the chief danger in wounds of the abdomen ?

From peritoneal inflammation.

52. Are all wounds of the pancreas absolutely mortal ?

Farr says they always are.

53. Why ?

Because it cannot be wounded without wounding other viscera, and it is supplied with large blood-vessels, which cannot be commanded when wounded.

54. What do you say of large wounds of the spleen ?

They are absolutely mortal.

55. How are small wounds of this viscus ?

Not absolutely mortal.

56. Are wounds of the lacteals and mesentery absolutely fatal?

Yes, on account of the great number of blood-vessels distributed amongst them.

57. Are wounds of the liver always necessarily mortal?

Not absolutely, but generally so.

58. What of wounds of the biliary duct and gall-bladder?

Not absolutely fatal.

59. Are wounds of the bladder fatal?

Physicians are divided in opinion upon this point. Exceptions in regard to surgical operations are not to be taken in this, and in many other cases, for such being immediately under the eye of the operator, the danger can, in many instances be guarded against.

60. Are wounds of the uterus absolutely mortal?

They are almost always so, on account of the sympathy of this organ with the heart and other important viscera.

61. What of wounds of the genital organs?

Not always absolutely mortal. Contused wounds of the spermatic cord are dangerous but not always fatal. A man in a neighboring town, to cut up a joke in attempting to ease

himself upon the pan of a trap which was set for a bear, crouched rather too low. The trap sprung and caught him round both spermatic cords above the testicles. They were so much bruised that castration was necessary. It was said he afterwards married, but did not live happily with his wife.

*Wounds of the neck.* 62. Are wounds of the internal jugular veins and carotid arteries necessarily fatal ?

Yes, unless a surgeon can be immediately present to check the flow of blood.

63. Do wounds of the intercostal nerves, and of the phrenic nerves which run through the neck speedily induce death ?

Yes.

64. How are small wounds of the oesophagus ?

Mortal only by accident.

65. How is an entire division of it ?

Absolutely fatal.

66. What do you say of wounds of the wind-pipe ?

All violent strokes upon the larynx, or cartilaginous membrane of the top of the wind-pipe, so as to destroy their tone and power of action speedily induce death.

67. Is a division of the wind-pipe fatal?

Absolutely so.

68. How are wounds known to have penetrated the thorax?

By inspection with the eye, by the probe, by no air being discharged by any means, by the return of liquors being injected warm when the body is placed in the same posture as it was when it received the wound, and by certain signs that the lungs adhere at that part of the pleura which the wound has penetrated.

69. Are all large wounds of the chest absolutely mortal?

No.

70. What may contusions and wounds of the chest be followed by?

Inflammation of the lungs, heart, and internal organs of the chest. Contusions of the female breast may produce cancer.

71. What is the prognosis of penetrating wounds of the thorax?

Uncertain, generally unfavorable.

72. How are large contusions and injuries of the walls of the chest with dilacerations of the intercostal arteries?

Absolutely mortal.



73. What do you say of wounds of the lungs?

Those which puncture and divide the great blood-vessels are absolutely mortal, but those which penetrate only the smaller ones are mortal only by accident.

74. How do you know when the lungs are penetrated deeply?

If the wound is mortal death must be in consequence of suffocation, a bloody foam will issue at the mouth; great difficulty of breathing, and excruciating pain. The bloody foam increases, the difficulty of breathing also increases, and the blood and air rattles in the throat. The face is livid about the lips and eyes, the pulse grows more and more feeble, and the patient dies in convulsions.

75. Does not emphysema sometimes occur from wounds of the lungs?

Yes.

76. How is this effected?

It is commonly from the wound being of small size, and entering in a direct line.

77. What does this singular affection consist in?

In the escape of air from the lungs into the cavity of the pleura, and thence into the cellular

substance, its escape being prevented by a closure of the external opening. It is sometimes confined to the neighborhood of the wound, and sometimes extends over the whole body.

78. Will you mention an extraordinary instance?

The following is from the *Memoirs of the Royal Academy at Paris*. A man thirty-two years old, of a sanguine and fleshy habit, received a wound penetrating the cavity of the thorax, of which he expired on the fifth day. But before death his whole body was surprisingly swelled with an emphysema, excepting the soles of his feet, and the palms of his hands, and the vertex of his head. Upon the thorax the tumor was eleven inches thick, upon the abdomen nine; in the neck six, and in the other parts of the body it was four inches thick. The eyes in the dead body were in a great measure thrown out of their orbits from the cellular membrane being distended with a great quantity of air.

79. Are all wounds of the heart necessarily fatal?

No, not if all the reports of some of our eminent surgeons are true. Van Swieten thinks that wounds of the left ventricle of the heart are

absolutely fatal, while those of the right ventricle may, and often do heal.

80. Will you give an account of a terrible case as related by Dr. Babington, where the heart was wounded without producing immediate death ?

The bayonet penetrated through the integuments, the abdominal muscles and peritoneum, pierced the colon, the stomach, the left lobe of the liver, the diaphragm, and entered the thorax at its centre, the pericardium received the wound, and through that the right ventricle of the heart. The lower part of the ventricle received it, and it forced its way out near the valve ; it again pierced the pericardium, and through both the upper and middle lobes of the lungs. From thence it forced a passage on the right side near the sternum between the cartilages of the second and third ribs, and terminated beneath the pectoral muscle, slightly wounding it. And this poor man did not feel himself much wounded. He drew out the bayonet himself, and thought himself fit to do the duties of a centinel. He lived nine hours after he received this dreadful wound, and it is pretty evident from this that he might have recovered from merely a simple puncture of the heart.

81. As a contrast to this, may it not be mentioned that death is induced from the slightest wounds ?

Yes, such as from the prick of a needle, the bite of a mosquito, and the sting of a bee.

82. Are not several cases of recoveries mentioned by writers where the heart has been wounded ?

Yes, by Van Swieten and others. Cicatrices have often been found in the course of the heart, in men, and in bears, dogs, stags, &c. killed in hunting. Even bullets have been found which must have remained in the heart a great length of time.

83. Are wounds of the pericardium always fatal ?

No, the heart cannot be wounded without piercing the pericardium.

84. Are not wounds of the aorta, coronary arteries, cardiac nerves, &c. absolutely fatal ?

Yes.

85. Are slight wounds of the diaphragm absolutely mortal ?

No, only by accident.

86. What do you say of those which penetrate the tendinous part of it ?

They are absolutely mortal.

We might greatly enlarge upon this subject, but enough has been said to show the importance of wounds in a medico-legal point of view. We might also treat upon wounds producing mutilations, but they can be determined upon by others, as well as physicians, and the laws of all countries are explicit on the subject.

## SECTION XII.

OF ASPHYXIAS, OR SUSPENDED ANIMATION.

*(Hanging.)*

1. What is meant by hanging ?

The suspension of a person by the neck with a cord, for the purpose of inducing death.

2. What are the questions which naturally present themselves in cases of hanging ?

1. Was the person suspended whilst alive, or after death. 2. Did he commit the act himself, or was he suspended by another.

3. Are these questions without their difficulties ?

No.

4. What is the cause of death now ascertained to be from hanging ?

From suffocation rather than from apoplexy, unless the spinal marrow is broken, in which case death instantly follows.

5. When a person is hanged up alive what will be the appearance of the mark of the cord ?

It will be plain round the neck, forming a livid, depressed circle.

6. What are the appearances of a person who has been suspended alive, according to Male ?

The chest, shoulders, arms, hands and face are swelled and livid, and a bloody mucus issues from the mouth ; the eyes are red and projecting, the eyelids generally open, the tongue wounded by the convulsive motion of the jaws, and frequently thrust out of the mouth. The shoulders are raised, and ecchymosis observed upon them, extending upon the breast and down upon the arms, the fingers are bent, and the hands nearly closed. The body does not appear so much pressed as when he expired upon a bed. The cartilages of the larynx are sometimes broken, and the vertebrae of the neck sometimes luxated, or fractured. Urine, feces, and semen, are sometimes involuntarily discharged.

7. What will be the appearance if the person was first strangled and afterwards suspended ?

Two distinct circles formed by the cord, will be perceived, or the deeply impressed marks of the fingers on the neck, with appearances of resistance having been made, such as clothes torn, the hair dissheveled, &c.

8. Must not the form and situation of the mark made by the rope be ascertained ?

Yes, if it is at the bottom of the neck, it has been supposed that the person has been strangled, for if suspended the cord would slip to the upper part of the neck. Ecchymosis does not occur if the person has been suspended after death.

9. When a person is suspended by the neck, how long a time ensues before the complete extinction of life ?

Generally five or six minutes. In drowning not more than a minute and a half or two minutes, before motion ceases.

10. What is this difference occasioned by ?

The imperfect stoppage of the trachea in hanging, admitting a small quantity of air to the lungs.

11. What is the appearance of the lungs on dissection, in hanging ?

They are collapsed, the same as in drowning.

12. What will be the appearance of the brain in hanging ?

The veins will be a little more turgid than in drowning, but in that case there is no extravasation.

13. What other proofs have we that persons who are hanged die from suffocation, rather than from apoplexy ?



The fact that if a trochar be inserted into the trachea of a dog, and the animal be suspended during the time usually necessary to destroy life, he will be found to have suffered no material injury.

14. Have not some availed themselves of this fact to save themselves in cases of hanging ?

Yes, during the French revolution several persons who were hung in the night saved themselves in this way.

15. How were they afterwards affected for several days ?

With a ringing in their ears.

16. How are infants sometimes strangled by unnatural parents ?

By smothering under bed-clothes, and pressing the trachea with the thumb and finger.

17. How can we sometimes detect the latter method of strangulation ?

By dissecting up the external integuments we shall find extravasated blood about the throat.

18. What are some of the resuscitatives in hanging ?

Bleeding is sometimes resorted to, but the grand *sine qua non* is artificial respiration. My friend Dr. Ives of New-York, who has written a dissertation upon this subject, says, ‘to stop ar-

tificial respiration for the purpose of effecting any other expedient, would, in our opinion, be as inexpedient, as to open a vein, or apply a blister in an ordinary case, and at the same time to suffocate the patient by immersing his head in water.' Frictions should be applied. Stimulate the nostrils.

(*Drowning.*)

'I consider an animal,' says John Hunter, 'apparently drowned as not *dead*, but that only the suspension of the *actions of life*, has taken place. I might compare the situation of such a person to that of a person in a trance. In both the action of life is suspended, without the powers of action being destroyed.'

19. When a person has been found drowned what inquiries are necessary?

1. Was the deceased drowned, or killed by other means and thrown into the water. 2. If he was drowned, did he destroy himself, or was he forced into the water by another.

20. Will not an examination of the body frequently determine this?

Yes.

21. What are the signs of drowning?

Orfila has recently read a memoir on the sub-

ject to the Royal Academy of Medicine in Paris. His observations contain an epitome of all that is known on the subject, and they subvert most of the opinions of preceding writers. He performed numerous experiments, on the bodies of individuals who had drowned themselves, and many experiments on dogs. We subjoin them.

1. That the red, livid and swelled condition of the face, with froth at the mouth, and nostrils, which some authors have laid down as indicating that the submersion has taken place during life, leads to no such inference, as it is wanting in many who have been drowned, and is present in many who have met their deaths from other causes.

2. That the same marks apply to extreme paleness of the face, which is an effect of the body remaining long in the water. M. Orfila here describes the alterations which the skin undergoes in those who have been long submersed. He asserts that on the legs the integuments become indigo color, and then brownish on exposure to the air, while the rest of the body is very white; but the moment it comes in contact with the air, it is successively converted into brown and green, commencing at the chest. Remaining long in the water also brings on

abrasions of the skin, which give rise to the idea of wounds having been inflicted.

3. Excoriations of the fingers and traces of dirt under the nails are of no assistance, because they are wanting in those who are drowned before they come to the bottom, while they may be present in a body which, being thrown into a river, strikes against various obstacles.

4. Injections of the brain and its membranes, M. Orfila thinks would be a satisfactory indication of drowning if it were proved that the body became cold in a vertical position. As, however, this sign is frequently absent in those who have been drowned, so it cannot be regarded as a positive proof.

5. In those who have been drowned, the right cavities of the heart, the venae cavae, the pulmonary veins and arteries, are generally distended by a quantity of black blood, while the left side of the heart and the aorta are much less filled; the right ventricle is of a blackish brown; the left of a clear rose color; and the right cavities retain a less contractile power than the left. This condition, however, is met with in many cases of sudden death.

6. Although the blood is generally fluid, yet M. Orfila has seen it coagulate in one individu-

al who was drowned ; a fact also observed by Lafosse, and more recently by M. Avissard.

7. The dissection of more than fifty persons who had been drowned has satisfied M. Orfila that it is a mistake to suppose that in drowning the individuals die in inspiration, and that, in consequence, they have the diaphragm pushed into the abdomen, and the chest elevated.

8. He regards the color of the abdominal viscera as indicative of asphyxia in general, but not from drowning in particular.

9. The experiments of Orfila, and some other physiologists, show that water enters the stomach of those who drown themselves ; while this is not the case with regard to bodies thrown into the water. But in order to give the full value to this sign, it would require to be proved that the water had neither been swallowed before death, nor injected after it.

10. It is not true that the epiglottis is pushed down upon the larynx.

11. Great importance has been attributed to the presence of sanguineous froth in the windpipe. M. Orfila, however objects that this exists in other cases, as in death from epilepsy, and hanging ; while it is wanting in the drown-

ed who have remained a long time under water, without coming to the surface to breathe.

Am. Med. Jour. 1828.

‘What transports’ says Dr. Thornton, ‘must it afford every compassionate bosom to be instrumental in recovering and recalling a helpless fellow being from an untimely grave; to witness at that critical juncture the heart-felt passions of anguish and despair, of hope, fear, surprise and joy, which alternately agitate the human frame—to mark the lively traits of gratitude painted in the countenances and deportment of the mother, sisters, and brothers of the restored object! What epicure could ever yet boast so refined, so exquisite a luxury as the benevolent deliverer must experience from such a scene; a scene far beyond what any pen has yet been able to describe, or pencil to expose. Little did any man think, not even the founders of the Humane Society themselves, inflamed as they were with sacred zeal, that in the year 1794 there should have been recorded 3000 instances wherein the society’s aid had been extended, two thirds of which had been successful.’

‘If such has been the progress of the institution in its early stages, what may not be expect-

ed, says Dr. Fothergill, now that philosophy holds up her torch to medicine to illumine its votaries in this new path of science! a science no less difficult than it is sublime and important; involving at once the most difficult problems in physiology, pathology, chemistry and pneumatic medicine! Calculated not only to exercise the keenest faculty of the head, than to interest the finest feeling of the heart.

22. What are the methods of resuscitation in cases of drowning?

Ample treatises have been written upon the subject, and may be found in the writings and works of the humane society of England, in Thornton's Medical Extracts, Struve, Fothergill, and in many of the medical writings of the present day. To these we must refer you for the method of recovering suspended animation, whether from hanging, drowning, noxious vapors, &c.

## SECTION XIII.

## OF INSANITY.

This is a subject which has been a stumbling-block to divines, a puzzle to lawyers, and which has elicited the talents and investigations of physicians from the earliest ages of the world. Still it is involved in great doubt and obscurity. It is extremely difficult to trace the intricate meanderings of the human mind, even in a sane state. What one might call sanity, another might call an aberration from reason. How many of the actions of men, who are acknowledged by the world to be in the full enjoyment of their reason, might be construed not merely into actions of folly, but into idiotism and insanity. The reasoning faculties of men are different upon different subjects, and upon the same subject, with the same premises, how different, many times are our conclusions and inferences, especially if they do not admit of mathematical demonstration; and even if they do, they are often the subject of disputes, and those too which are maintained with the utmost pertinacity, and



sometimes with rancour and malice. If then the history of the human mind in its sane state is so complex, and is involved in so many labyrinths, what must be the difficulties with which we have to contend in tracing out the state of derangement of the intellectual faculties. This subject is highly important in a medico-legal point of view, for a man who is insane is not amenable to justice for his actions, nor is he capable of disposing of his property. Under these embarrassments we shall avail ourselves extensively of the opinions of Haslam and Rush, two of the most able writers upon the subject of insanity.

1. What is the meaning of the term insanity?

From its etymology it signifies want of soundness, or want of health.

2. How is it applied in the English language?

To denote an unsound state of the mental powers, or mental derangement.

3. Ought it to embrace a greater extent of malady?

Yes, for it comprehends cases in which the mental powers are deficient, as well as those where they are disordered.

4. What does the imputation of insanity bring upon an individual?

It subjects him to the loss of the common privileges of a man and a citizen, and in certain cases to the lowest degradation.

5. Ought not the rash imputation of insanity to be strictly guarded against ?

Yes, it ought not to be thought of without horror.

6. What are the two principal species into which this disease is divided ?

Mania, and melancholia.

7. What is mania characterized by ?

By uncommon excitement.

8. What is melancholy denoted by ?

By great depression.

9. What other complaints may be added to these ?

Dementia, and fatuity.

10. How may idiocy be distinguished from madness ?

The idiot cannot reason, the madman reasons falsely.

11. What is fatuity ?

This consists in a want of ideas, and a total deficiency of the intellectual powers.

12. Into how many kinds does Lord Coke class *non compos mentis* ?

Into four.

13. What are they ?

1. Idiotia, which from his nativity by a perpetual infirmity is non compos mentis. 2. He that by sickness, grief, or any other accident wholly loses his memory and understanding. 3. A lunatic which hath sometimes his understanding, and sometimes not ; and 4. he is called non compos mentis so long as he hath not understanding.

14. Are there not partial derangements of the brain which render the patient liable to impressions either of the sight or sound, without disordering the judgment or memory ?

Yes, and it is from this, says Dr. Farriar, that the best supported stories of ghosts and apparitions may be accounted for.

15. Is there not a partial insanity, as well as a total insanity ?

Yes.

16. According to Sir Matthew Hale, does this partial insanity excuse them from any offence in its matter capital ?

No, for doubtless most persons that are felons of themselves, and others, are under a degree of partial insanity, when they commit the offences.

17. Is it not difficult to define the invisible line that divides perfect and partial insanity ?

Yes, but it must be left to circumstances duly to be weighed and considered both by the judge and jury.

18. In cases of atrocity what should be most apparent ?

The relation between the disease and the act.

19. Can the protection of insanity be allowed to a man who only exhibits violent passions, and malignant resentments, who is impelled by no morbid delusions, but who proceeds upon the ordinary perceptions of the mind ?

No.

20. Is it not a fact well established that those who are insane on particular subjects, will argue correctly on ordinary points ?

Yes, provided they do not become associated with the prevailing notions which constituted the insanity.

21. Are not ordinary minds deceived by this temporary display of rational discourse ?

Yes, and they are too hasty in forming an opinion from slight knowledge. A lunatic may converse, for a long time, with the utmost regularity upon most of the common topics of the

day, and perhaps display an unusual evidence of reason ; and a man is considered rational so long as he does reason. If now the observer retires he will pronounce the lunatic perfectly sane. But let the cause of his derangement be touched upon and the maniac will be confessed. The following case occurred to Lord Erskine, which exercised all his ingenuity to unravel, nor would he have detected it, had it not been for Dr. Sims. It is thus related by Lord Erskine :—‘ I well remember, indeed I cannot well forget it, that since the noble and learned judge has presided in this court, I examined for the greater part of the day an unfortunate gentleman, who had indicted a most affectionate brother, together with the keeper of a mad-house at Hoxton, for having imprisoned him as a lunatic, whilst according to his evidence he was in his perfect senses. I was unfortunately not instructed in what his lunacy consisted, although my instructions left me no doubt of the fact, but not having the clue he completely foiled me in every attempt to expose his infirmity. You may believe me that I left no means unemployed which long experience dictated, but without the smallest effect. The day was wasted, and the prosecutor, by the most affecting history of un-

merited suffering, appeared to the judge and jury, and to a humane English audience, as the victim of the most wanton and barbarous oppression. At last Dr. Sims came into court, who had been prevented by business from an earlier attendance. From Dr. Sims I soon learned that the very man I had been above an hour examining, and with every possible effort which counsel are so much in the habit of exerting, believed himself to be the Lord and Saviour of mankind, not merely at the time of confinement, which alone was necessary for my defence, but that during the whole time that he had been triumphing over every attempt which had been made to surprise him in the concealment of his disease. I then affected to lament the indecency of my ignorant examination, when he expressed his forgiveness, and said with the utmost gravity and emphasis in the face of the whole court, '*I am the Christ,*' and so the cause ended.' Several other such cases are on record.

22. May not a lunatic be correct in conversation, and insane in conduct ?

Yes, and there is a madness in words, and another in action.

23. How may insanity generally be discovered ?

By a wildness of the eyes, very high and very low spirits, extravagant conversation or action, the eyes are sometimes fixed on one object and often on vacuity. These first symptoms are generally unnoticed by the inexperienced, and they do not perceive him to be insane until his conversation is incoherent, or his actions extravagant. The body is costive, the night is passed in restlessness, and conversations are held with imaginary beings with whom the lunatic often quarrels. These symptoms increase and are followed by mania.

24. What may insanity arise from ?

Various causes, as blows or injuries on the head, excessive indulgence of the passions of lust, anger and revenge, intemperance, repelled discharges, fanaticism, severe study, disappointed ambition, mortified pride, grief and despair, severe and long continued epilepsy, excessive enthusiasm, gloomy notions in religion, &c. and numerous others.

25. Why is insanity often feigned ?

For the purpose of escaping from punishment.

26. How can we detect it ?

It is many times difficult to do it. A sane person cannot endure the loss of sleep like an

insane one. When the suspected individual is watched he will feign the complaint, not so when he thinks he is not observed. No one can counterfeit the expression of countenance of the insane. Real maniacs wish to conceal their situation. Pretenders wish to display it. Powerful emetics and cathartics do not operate upon the insane, as upon others. In examining the history of the insane, as given by himself, he will sometimes explain the motive which led to his conduct. Melancholy is difficult to detect, but melancholics do not attempt to injure others, which maniacs do. Maniacs resist cold longer than other people. Beck observes, 'it may sometimes be proper, if suspicion exists, to speak of some severe remedy, or to threaten some punishment. The really insane do not heed it, and hence are insensible of fear. The feigned, on the other hand, will often discover by words or actions, the emotions which the threat produces.' Zaccheus, and Fodere resorted to this method with success. Dr. Rush observes in counterfeit insanity the pulse will be natural, in real insanity it is more excited than in a healthy state. 'The knowledge of this fact has once been applied with success in the ad-



ministration of the criminal law of the United States. One of the two men who was condemned to die for treason committed against the general government of the United States in the western counties of Pennsylvania, in year 1794, was said to have lost his reason after sentence of death had been pronounced upon him. A physician was consulted in his case, who declared his madness to be feigned. General Washington, then President of the United States, directed a consultation of physicians upon his case. Dr. Griffin, Dr. Saml. P. Griffiths, and myself, were appointed. The man spoke coherently upon several subjects, and for a while the state of his mind appeared doubtful. I suggested the propriety of examining his pulse. It was more frequent by twenty strokes in a minute than in a healthy state of the body and mind. Dr. Shippen ascribed this to fear. I then requested that the pulse of his companion in guilt and fear might be felt. It was perfectly natural in frequency and force. This discovery induced us to unite in a certificate, that the man who was only supposed to be mad, was really so; in consequence of which his execution, together with that of his companion, was sus-

pended for two months, in which time the popular clamor for their lives so far subsided that they were both pardoned by the executive of the United States.'

27. Ought not the medical witness in order to impress and satisfy the tribunal, before which the testimony is given, before pronouncing the party to be insane, to adduce sufficient reasons as the foundation of his opinion?

Yes, I have so stated it in my preliminary address, and for this purpose it behoves him to have investigated accurately the collateral circumstances. It should be inquired if he had experienced an attack at any former period of his life. If insanity had prevailed in his family. If any of those circumstances which are generally acknowledged to be causes of the disease had occurred. As injuries of the head, mercurial preparations largely or injudiciously administered—attacks of paralysis, suppression of customary evacuations, &c. It should likewise be ascertained if previous depression of mind had prevailed, resulting from grief, anxiety, disappointment, &c. And it should not be neglected to collect any written documents; as insane persons will very often commit to writing their

feelings and opinions, although they may suppress them in discourse.

28. When the mind is deranged on one subject only, is the person disqualified for making a will ?

If the subject of derangement should be unconnected with property or morals, he is not. (Rush.)

29. According to Dr. Rush what may mania be occasioned by ?

‘1. By a peculiar hereditary sameness of organization of the nerves, brain, and blood-vessels, and sometimes pervades whole families, and renders them liable to this disease, from a transient or feeble operation of its cause.

30. What second ?

A predisposition to madness is said to be connected with dark-colored hair. Mr. Haslam informs us that this was the case in 205 out of 265 patients in the Bethlehem hospital.

31. What third ?

There is a greater predisposition to madness between thirty and fifty than in any other previous or subsequent years of human life. Of the correctness of this remark Mr. Pinel has furnished us with the following proof. Of 1201

persons who were admitted into the Bicetre hospital in France between the years 1784, and 1793, 955 were between the two ages that have been mentioned. 65 were between 15 and 20. 131 were between fifty and sixty, and 51 between sixty and seventy-one. Madness it is said, seldom occurs under puberty. From the records of the Bicetre hospital it appears that madness rarely occurs in old age.

32. What fourth?

Women in consequence of the greater predisposition imparted to their bodies by menstruation, pregnancy and parturition, and to their minds by living so much alone in their families, are more predisposed to madness than men.

33. Fifth?

Single persons are more predisposed to madness than married people. Celibacy, it has been said, is a pleasant breakfast, a tolerable dinner, but a very bad supper. The last comparison will appear to be appropriate when we consider that the supper is not only of a bad quality, but eaten alone. No wonder it sometimes becomes a predisposing cause of madness.

34. What is the sixth?

The rich are more predisposed to madness than the poor, from their exposing a larger surface of sensibility to all its remote and exciting causes.

35. What is the seventh cause of insanity ?

Certain occupations predispose to madness more than others. Pinel says poets, painters, sculptors, and musicians, are most subject to it, and that he never knew an instance of it in a naturalist, a mathematician, or a natural philosopher.

36. Eighth ?

Certain states of society, and certain opinions, pursuits and amusements and forms of government have a considerable influence in predisposing to derangement. It is a rare disease among savages.

37. Last ?

Revolutions in governments which are often accompanied with injustice, cruelty, and the loss of property and friends, and where this is not the case, with an inroad upon ancient and deep seated principles and habits, frequently multiply instances of insanity.'

38. What are the laws in relation to insanity ?

They are various, and different in different countries. A full view of them may be seen in Judge Cooper's paper, published also in Ryan's Medical Jurisprudence by Griffith, in Philadelphia, in 1832, and in Beck's Medical Jurisprudence.

# G L O S S A R Y

OF THE

TECHNICAL AND SCIENTIFIC TERMS USED IN  
THE FOREGOING WORK.

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For the benefit of the unprofessional reader I have added the following Glossary.

## A.

*Abdomen*, The lower part or cavity of the belly.

*Abortion*, The premature expulsion of the contents of the womb after conception.

*Acetate*, A salt formed by the union of acetic acid with a salifiable, metallic, or earthy base.

*Acetic acid*, Distilled vinegar.

*Actual cautery*, A red or white hot iron.

*Adnata*, This term is generally applied to the white of the eye.

*Amaurosis*, A dimness of sight or blindness from injury or disease of the optic nerve.

*Amenorrhoea*, An obstruction or suppression of the monthly discharges of women, from other causes than pregnancy and old age.

*Ammonia*, Volatile alkali.

*Amnion*, The internal membrane which surrounds the child in the womb.

*Antidote*, As here used, a remedy against poison.

*Anus*, The lower extremity of the fundament, or rectum.

*Aorta*, The great artery of the body arising directly from the heart.

*Apoplexy*, A disease of the brain, or fit in which there is a sudden suspension of sense and motion.

*Areola*, A brown circle surrounding the nipples of females.

*Ascites*, Dropsy of the belly.

*Asphyxia*, The absence of pulsation, but not of life.

*Auscultation*, The act of exploring or sounding certain parts of the body by means of an instrument, called a stethoscope.

## B.

*Barytes*, The ponderous earth.

*Biliary ducts*, Vessels which convey bile from the liver to the common bile ducts, and from thence to the intestines.

*Cachexy*, A wasting of the body ; a vitiation of the fluids.



## C.

- Caesarean operation*, The act of cutting the child from the womb.
- Calculus*, The stone in the bladder.
- Calyx*, The part of the flower which surrounds and supports the petals.
- Capsule*, As here applied, the seed vessel of plants.
- Carbonaceous*, Relating to carbon, or charcoal.
- Carbonate*, A neutral salt formed by the union of carbonic acid with an earthy, alkaline, or metallic base,
- Carotid arteries*, The great arteries which convey blood to the head.
- Cardiac*, Relating to the heart.
- Cardialgia*, The heart-burn.
- Cartilago ensiformis*, The cartilage at the extremity of the breast-bone.
- Catalepsy*, A severe species of epilepsy, or apoplexy.
- Catamenia*, The monthly discharge in women after the age of puberty.
- Cellular-membrane*, The tissue of the body containing fat, and full of cells.
- Centimeter*, A French measure. A meter is about 39 inches. A centimeter is one hundredth part of a meter.

*Cerebellum*, The little brain.

*Cerebrum*, The brain.

*Chloride*, Chloric acid united with a salifiable base.

*Chorion*, The external membrane of the child in the womb.

*Choroid plexus*, A contexture of blood-vessels situated in the lateral ventricles of the brain.

*Chromate*, The union of chromic acid with a salifiable base.

*Chrome*, One of the metals, remarkable for giving color to its combinations.

*Cicatrix*, A scar upon the skin after healing a wound or an ulcer.

*Cicuta aquatica*, A species of poison hemlock.

*Clitoris*, A small gland within the labia pudenda before the urinary passage of women.

*Coitus*, Coition.

*Colica pictonum*, Painters' colic.

*Colon*, One of the large intestines—supposed to be the seat of colic.

*Conception*, Impregnation.

*Conium*, A species of poison hemlock.

*Corol*, The inner delicate covering of a flower which constitutes its principal ornament.

*Corpus luteum*, The granulous protuberance found in that part of the ovarium of females, from whence an ovum has proceeded.

*Corrosive sublimate*, A poisonous preparation of mercury. The muriate of mercury.

*Coup de soliel*, (French) A stroke of the sun.

*Cranium*, The skull.

*Crepitus*, A crackling sound.

*Cuticle*, The scarf skin.

## D.

*Decidua*, A thin delicate membrane adhering to the impregnated womb.

*Dementia*, Absence of intellect. Delirium. Madness.

*Diaphragm*, The midriff. A muscle dividing the thorax from the abdomen.

*Drastic*, Brisk. Medicines which are violent in their action.

*Duodenum*, The first portion of the small intestines.

*Dura mater*, The outer membrane which envelops the brain.

## E.

*Ecchymosis*, A black and blue swelling from extravasation of blood.

*Emission*, The act of discharging, as here applied.

*Emphysema*, Air in the cellular membrane.

*Epiglottis*, The cartilage at the root of the tongue, covering the larynx.

*Epilepsy*, Generally called falling sickness.

*Ergot*, The spurred rye.

*Eschar*, A portion of flesh destroyed by caustic.

*Ethmoid bone*, One of the bones of the head.

*Excoriation*, An abrasion of the skin.

*Extravasation*, (See ecchymos.)

## F.

*Faeces*, Alvine excretions. Excrements voided by stool.

*Fallopian tubes*, Tubes leading from the womb to the ovaria.

*Fatuity*, Imbecility of intellect.

*Femoral artery*, The great artery of the thigh.

*Fluor albus*, The whites. A mucous discharge from the vagina.

*Foetus*, A child in the womb of its mother from the fifth month to the time of its birth.

*Fontanelle*, The opening of the skull on the top of the head of a child.

*Foramen ovale*, The opening between the two auricles of the heart in the foetus.

*Fraenulum*, That fold of the skin under the tongue, which connects it with the lower part of the mouth.

*Fraenum*, The fold of skin at the lower part of the glans penis.

## G.

*Gangrene*, An incipient mortification.

*Genitals*, The organs of generation.

*Gestation*, The act of bearing the young in the womb.

*Glottis*, The opening of the larynx at the bottom of the tongue.

*Grumous*, Thick, clotted.

## H.

*Haemorrhage*, A discharge of blood.

*Hermaphrodite*, A person with a malformation of the sexual organs.

*Homicide*, Manslaughter. Murder.

*Hydatid*, An animal formed like a bladder, and filled with fluid.

*Hydrogen*, Inflammable air, the base of water.

*Hydrostatic*, The art of weighing in water.  
The doctrine of fluids.

*Hymen*, A membranous circle, nearly or quite surrounding the vagina.

*Hypochondriasm*, Vapors. Spleen.

*Hysteria*, Hysterics. Supposed to proceed from disorders of the womb.

## I.

*Idiocy*, A want of understanding ; a fool.

*Idiosyncrasy*, A peculiar temper or disposition.

*Insanity*, Derangement of the mental faculties.

*Insufflation*, The act of breathing upon.

*Integuments*, The skin.

*Intercostal artery*, The artery between the ribs.

*Jugular veins*, The great veins of the neck.

## L.

*Labiate*, Having lips.

*Labia*, A lip.

*Lacteals*, The absorbents of the mesentery which convey nourishment to the body.

*Larynx*, The upper part of the wind-pipe.

*Ligamenta lata*, The broad ligaments of the womb, and liver.

*Ligamenta rotunda*, The round ligament of the womb.

*Liquor amnii*, The liquor which surrounds the foetus in the womb.

*Lochia*, The discharge which occurs from the womb for some time after child-birth.

*Lunatic*, An insane person.

*Lurid*, Gloomy, dismal.

*Lymphatics*, Absorbent vessels.

## M.

*Malformation*, Distortion.

*Mania*, Raving or furious madness.

*Meconium*, The first discharge from the bowels of infants.

*Membrane*, A thin extended skin to protect certain parts of the body, as the cavity of the abdomen, &c.

*Membrana pupillaris*, A delicate membrane of the eye.

*Menses*, The monthly discharges of females after the age of puberty.

*Mesentery*, A membrane in the abdomen to which the intestines adhere.

*Mole*, As here applied, a false conception.

*Monsters*, All deviations from the common course of nature in midwifery are called monsters.

*Morbid*, Diseased.

*Muriate*, The union of muriatic acid with a salifiable base.

*Muscles*, Portions of flesh.

## N.

*Narcotic*, A medicine which has the power of inducing sleep.

*Narcotico-acrid*, An irritating narcotic poison, as applied here.

*Nausea*, An inclination to vomit without effecting it.

*Nitrate*, The union of nitric acid with a metal, a salt, &c.

*Non compos mentis*, An idiot, not of sound mind.

*Nymphae*, Membranes within the labia, at the entrance of the vagina.

## O.

*Oesophagus*, The passage leading from the mouth to the stomach.

*Optic nerve*, Nerves which form the retina, and are the organs of sight.

*Os externum*, The entrance into the vagina.

*Os tincae*, The orifice or mouth of the womb.

*Os uteri*, The same as os tincae.

*Ovarium*, Appendages of the womb.

*Ovum*, Literally an egg which becomes impregnated in the ovarium and passes through the fallopian tubes into the womb.



*Oxyd*, A substance formed by the union of oxygen with a base, as oxyd of mercury, oxyd of iron, &c.

*Oxygen*, Vital air, one of the constituent principles of the atmosphere.

## P.

*Pancreas*, One of the viscera of the abdomen.  
The sweet-bread.

*Paralysis*, The palsy.

*Parturition*, The act of child-birth, as here applied.

*Pathology*, The doctrine of diseases.

*Pectoral*, Relating to the breast.

*Pelvis*, The cavity below the belly.

*Pericardium*, The covering of the heart, or heart case.

*Peripneumony*, Inflammation of the lungs and their investments.

*Peritoneum*, A membrane surrounding the cavity of the abdomen.

*Physiology*, The science which treats of the actions and powers of the living body.

*Pistil*, The central organ of a perfect flower.

*Placenta*, The after-birth.

*Pleura*, The membrane which invests the cavity of the thorax.

*Pneumatic*, Relating to the doctrine of air.

*Praecordia*, About the region of the heart.

*Precocity*, Prematurity.

*Puberty*, Ripeness of age, before which a female is not capable of conceiving, nor a male of procreating.

*Pubes*, The external parts of the organs of generation in both sexes.

*Pudendum*, The female organs of generation.

*Puerperal fever*, Child-bed fever.

*Pulmonary*, Relating to the lungs.

*Pupil of the eye*, The round opening in the middle of the eye.

*Pyloric*, Relating to the pylorus, one of the intestines.

## R.

*Rectum*, The straight gut terminating at the anus.

*Respiration*, Breathing.

*Resuscitatives*, Means applied for restoring suspended animation.

*Retching*, Straining to vomit.

*Rugae*, Wrinkles.

## S.

*Salivation*, An increased secretion of saliva, or spittle.

- Sanity*, A state of health, both of mind and body.
- Schirrus*, A hard tumor, or induration of the flesh.
- Scrotum*, The common integuments which cover the testicles.
- Sedatives*, Medicines which have the power of diminishing animal energy without destroying life.
- Semen*, The male prolific seed, capable of impregnating.
- Septic*, Relating to putrefaction.
- Septum*, A division, or separation.
- Sinus*, A cavity or depression.
- Sodomy*, An unnatural intercourse between man and man, or between the human species and animals.
- Spermatic cord*, A cord belonging to the testicles and ovaria.
- Sphincter muscles*, Muscles which bind, or draw together, as at the anus.
- Stamen*, One of the organs of a flower.
- Stethoscope*, An instrument for examining the body for disease by auscultation.
- Sternum*, The breast bone.
- Sternutatory*, A medicine which produces sneezing.

*Stramonium*, The thorn-apple, or apple Peru.

*Strangury*, A difficulty of passing water from the bladder.

*Sugillation*, A bruise.

*Sulphate*, The union of sulphuric acid with a salifiable base.

*Sulphuret*, Impregnated with sulphur.

*Superfoctation*, The impregnation of a woman already pregnant.

*Syllabus*, Heads of a discourse.

*Syncope*, Fainting.

### T.

*Temporal artery*, The artery which supplies the temple with blood.

*Tenesmus*, Constant inclination to go to stool without a discharge.

*Testes*, The testicles.

*Tests*, The application of agents for the detection of poison.

*Trachea*, The wind-pipe.

*Trancc*, An ecstasy, the temporary absence of the soul from the body.

*Thorax*, The chest.

*Toxicology*, Relating to poisons.

*Tubercle*, A hard superficial tumor proceeding slowly to suppuration.

*Turgescence*, Fulness.

## U.

*Umbilical*, Relating to the navel.

*Umbelliferous*, Like an umbrella.

*Utero-gestation*, Gestation, or bearing the young  
in the womb.

*Uterus*, The womb.

## V.

*Vagina*, The canal which leads to the womb.

*Varicose veins*, Dilatation of the veins.

*Vena cava*, The great vein of the body leading  
directly to the heart.

*Venereal*, Relating to the disease induced by  
impure coition.

*Ventricle*, One of the cavities of the heart.

*Vertebra*, The spine.

*Vertex*, The crown of the head.

*Vertigo*, Giddiness.

*Vesicula*, An elevation of the cuticle containing  
a watery fluid.

*Villous*, Woolly, one of the coats of the stomach  
is villous.

*Viscera*, The contents of the thorax and abdo-  
men.

*Vesicula seminalis*, Seed vessels.



## Recommendations.

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*From the Professors in the Berkshire Medical Institution.*

Berkshire Medical Institution, June 26, 1834.

Stephen W. Williams, M. D.

Dear Sir—Having been informed that you propose to publish an abstract of the Lectures on Medical Jurisprudence delivered in this Institution, we would express our cordial approbation of the plan. Your course of Lectures was highly satisfactory to the Faculty and Students who had the pleasure of hearing them.

With much respect, Yours &c.

H. H. CHILDS,  
C. DEWEY,  
WILLARD PARKER.

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*From VALENTINE MOTT, M. D. Professor of  
Pathological and Operative Surgery in the  
University of New-York, &c.*

To Dr. Stephen W. Williams,

My Dear Doctor—In your fidelity to execute a Catechism of Medical Jurisprudence, I can place full reliance. You need not, therefore, place the manuscript in my hands to satisfy me on that point.

VALENTINE MOTT.

New-York, 30th June, 1834.

## RECOMMENDATIONS.

*From* JEROME V. C. SMITH, M. D. *Late Professor of Anatomy in the Berkshire Medical Institution, Health Physician of the Port of Boston, &c.*

To Doctor Stephen W. Williams,

In relation to your Catechism of Medical Jurisprudence, a considerable part of which was delivered in my hearing, before the classes in the Berkshire Medical Institution, when we had the pleasure of being associated lecturers, it will add to your reputation, to give it to the world. No such work as you propose is extant, and to the physician, surgeon, lawyer, judge and jury, it will be an important book of reference.

J. V. C. SMITH.

Boston, June 19th, 1834.

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*From* ALPHEUS F. STONE, M. D. *Fellow and Counsellor in the Massachusetts Medical Society.*

To Stephen W. Williams, M. D.

Dear Sir—Having attentively examined the manuscript of the "Catechism of Medical Jurisprudence," I have no hesitation in saying that I think it will prove highly useful to that portion of the public for which it is designed, and that the execution is such as will meet with general approbation. I have long thought a work of this kind was much needed, and am happy to find that one so well qualified as yourself has undertaken it.

A. F. STONE.

Greenfield, 5th July, 1834.

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*From the Boston Medical and Surgical Journal.*

Having seen a specimen of the work in manuscript, we are favorably impressed:—and even if we had not, Dr. W. by his indefatigable industry and critical research in medical philosophy, has secured an extended reputation that will command respect for his writings wherever they may be circulated.

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